WATER TURBINES

RODNEY HUNT MACHINE CO.

ORANGE
MASS

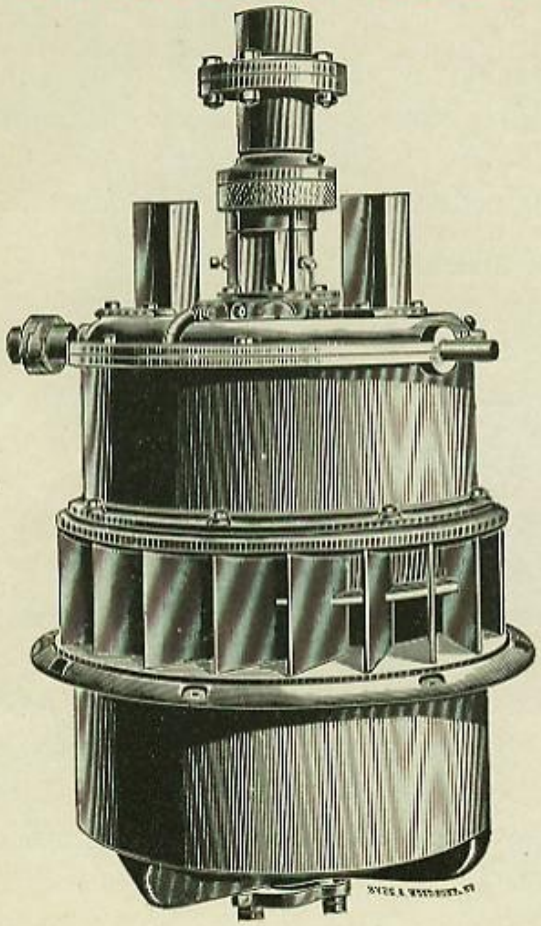
CATALOGUE No. 29

SECTION B

CYLINDER GATE

CASING

HUNT-McCORMICK TURBINES



WITH CYLINDER GATE CASING OR BALANCE GATE CASING, AS PREFERRED

This cut represents our New Pattern Hunt Turbine with Cylinder Gate Casing. Same casing usually furnished with the McCormick type of runner. Page 39.

Highest Efficiency **Greater Power**

Easy and Quick Regulation **Steady Motion** **Durability**

(1902)

RODNEY HUNT MACHINE CO.

ORANGE, MASS.

BOSTON OFFICE: 70 Kilby Street, Mason Building

Long Distance Telephone, Orange and Boston. Telephone No. 1198 Main

SECTION B, CATALOGUE NO. 29

HUNT-McCORMICK TURBINE WATER WHEELS

ADAPTED TO EVERY KIND OF SERVICE

This Section B Illustrates Our HUNT-MCCORMICK Cylinder Gate Turbines

SEE SECTION C FOR DESCRIPTION BALANCE GATE TURBINES

THE CYLINDER GATE for WATER TURBINES is regarded by many mill men and engineers as the MOST DESIRABLE ARRANGEMENT for speed gate in Turbine casings. MUCH DEPENDS on DESIGN of SUPPORT and WORKMANSHIP whether BEST RESULTS possible are secured with this type of gate.

INSTEAD OF DEPENDING on a turned ring alone for supporting our cylinder gates and making a tight joint around the gate as in other CYLINDER GATE TURBINES, we provide GROOVED SEGMENTS with PACKING bolted to the supporting ring similar to the PACKING SEGMENTS on a STEAM ENGINE PISTON. This design ensures an easy working and tight closing gate.

THE COVERS on our wheel casing are MADE IN HALVES with bolted flanged joint so that EACH PART can be READILY REMOVED and GATE RACKS and PINIONS gotten out conveniently. THESE RACKS ARE PROTECTED with REMOVABLE HOUSINGS to KEEP OUT DRIFT. THE PINION SHAFT can be READILY REMOVED without disturbing the wheel shaft or any other part of the wheel.

ALL PARTS of these Turbines are made EXTRA HEAVY AND POWERFUL and of the BEST MATERIAL. ALL JOINTS are MACHINE PLANED and the WORKMANSHIP throughout is FIRST CLASS.

THE STEP under the wheel can be ADJUSTED OR REMOVED and a NEW STEP INSERTED without taking up the wheel. A RELIABLE AUXILIARY STEP is provided on top of the casing as an EXTRA SAFEGUARD. THE COVERS of the casing are made IN HALVES and EXTRA HEAVY and afford ample support for this auxiliary step.

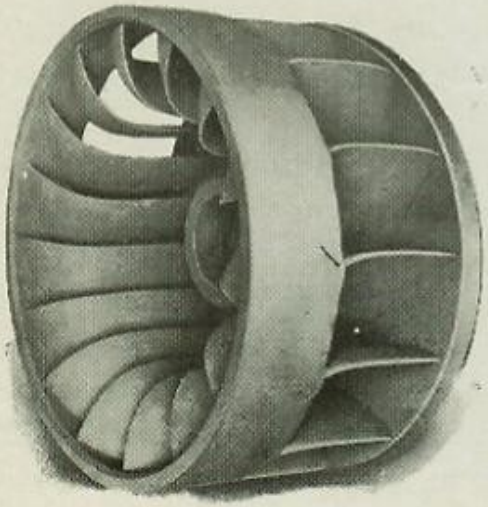
OUR WORKS

DURING RECENT YEARS we have made LARGE ADDITIONS TO OUR SHOPS and have equipped them with NEW MACHINES, TRAVELING CRANES, etc., especially adapted for handling heavy work to the best advantage. OUR WORKS are ELECTRICALLY OPERATED through motors from OUR OWN WATER POWER ELECTRIC STATION. OUR COMPRESSED AIR PNEUMATIC EQUIPMENT enables us to manufacture STEEL FLUMES and PENSTOCKS RAPIDLY, and in the most SUBSTANTIAL manner. OUR OUTFIT of special machines and standard gauges for duplicating is complete, and our PATTERNS ARE NEW and are designed with CLOSE ATTENTION to detail along the lines of the BEST ENGINEERING PRACTICE and most approved methods to meet the requirements of the MOST PROGRESSIVE MANUFACTURERS.

This Hunt-Swain Runner

Is Furnished in Our New Pattern Cylinder Gate Casing or May be Furnished With Our Balance Gate Casing

Made in a single extra heavy solid casting for high falls. Such construction of runner with extra heavy casing and moderate speed, especially adapts this wheel for the highest falls.



This McCormick Runner

Is Furnished in Our New Pattern Cylinder Gate Casing or Our Balance Gate Casing, Section C, Catalogue 29

See tables pages 42-51 this section and Section C. The size of turbine in these tables refers to the diameter of the crown of the runner.

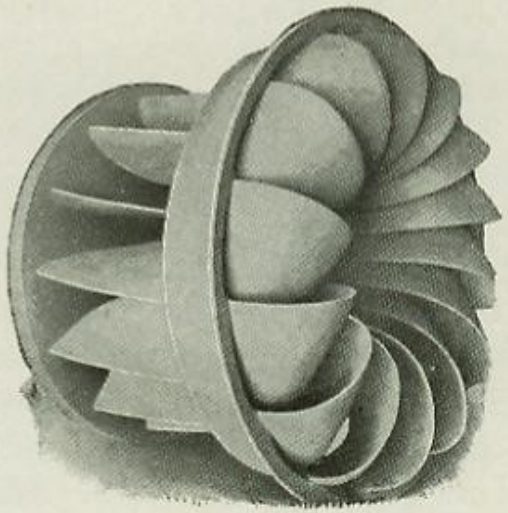


TABLE OF DIMENSIONS

New Turbine Hunt Pattern

Size of Wheel	Diameter of hole to be made through floors of flume.	Diameter of top flange on draft-tube.	Size of Flume inside of planking	Depth of draft-tube.	Size of Shaft	Height from under side of flange to center coupling.	Depth of pit, from end of draft-tube to bottom of wheel-pit.
9 inch	1 ft. 4 in.	2 ft. 1 in.	4 ft.	1 ft.	1½ in.	2 ft. 3 in.	1 ft. 2 in.
12 in.-No. 2	1 ft. 7 in.	2 ft. 4 in.	4 ft. 3 in.	1 ft.	1¾ in.	2 ft. 6 in.	1 ft. 3 in.
12 in.-No. 1	1 ft. 7 in.	2 ft. 4 in.	4 ft. 6 in.	1 ft.	1¾ in.	2 ft. 4 in.	1 ft. 5 in.
15 inch	1 ft. 10 in.	2 ft. 7 in.	4 ft. 9 in.	1 ft. 1 in.	2 in.	2 ft. 9 in.	1 ft. 6 in.
18 inch	2 ft. 5 in.	2 ft. 11 in.	5 ft.	1 ft. 2 in.	2½ in.	3 ft. 2 in.	1 ft. 8 in.
21 inch	2 ft. 5 in.	3 ft. 1 in.	5 ft. 3 in.	1 ft. 3 in.	3 in.	3 ft. 7 in.	2 ft.
24 inch	2 ft. 11 in.	3 ft. 4½ in.	5 ft. 6 in.	1 ft. 3 in.	3½ in.	3 ft. 11 in.	2 ft. 5 in.
27 inch	3 ft. 1½ in.	3 ft. 8¼ in.	6 ft.	1 ft. 3 in.	4 in.	4 ft. 2½ in.	2 ft. 8 in.
30 inch	3 ft. 4½ in.	4 ft.	7 ft.	1 ft. 4 in.	4 in.	4 ft. 6 in.	3 ft.
33 inch	3 ft. 5¼ in.	4 ft. 4 in.	7 ft. 6 in.	1 ft. 5 in.	4½ in.	4 ft. 9 in.	3 ft. 3 in.
36 inch	3 ft. 10 in.	4 ft. 8 in.	8 ft.	1 ft. 5 in.	4½ in.	4 ft. 10 in.	3 ft. 8 in.
39 inch	4 ft. 1 in.	5 ft.	8 ft. 6 in.	1 ft. 6 in.	5 in.	5 ft. 1 in.	3 ft. 10 in.
42 inch	4 ft. 4 in.	5 ft. 4 in.	9 ft.	1 ft. 6 in.	5 in.	5 ft. 5 in.	4 ft.
45 inch	4 ft. 7 in.	5 ft. 7 in.	9 ft. 6 in.	1 ft. 7 in.	5½ in.	5 ft. 9 in.	4 ft. 4 in.
48 inch	4 ft. 10 in.	5 ft. 10 in.	10 ft.	1 ft. 7 in.	5½ in.	6 ft.	4 ft. 8 in.
51 inch	5 ft. 3 in.	6 ft. 1 in.	10 ft. 6 in.	1 ft. 8 in.	6 in.	6 ft. 2 in.	4 ft. 10 in.
54 inch	5 ft. 5½ in.	6 ft. 4½ in.	11 ft.	1 ft. 8 in.	6 in.	6 ft. 4 in.	5 ft. 2 in.
57 inch	5 ft. 8 in.	6 ft. 7½ in.	11 ft. 6 in.	1 ft. 9 in.	6 in.	6 ft. 6 in.	5 ft. 4 in.
60 inch	5 ft. 11 in.	6 ft. 10½ in.	12 ft.	1 ft. 9 in.	6 in.	6 ft. 9 in.	5 ft. 6 in.
66 inch	6 ft. 6 in.	7 ft. 3½ in.	13 ft.	1 ft. 10 in.	7 in.	7 ft. 2 in.	5 ft. 8 in.
72 inch	7 ft. 1 in.	8 ft.	15 ft.	1 ft. 11 in.	8 in.	8 ft.	6 ft.
80 inch	7 ft. 9 in.	8 ft. 8 in.	17 ft.	2 ft.	9 in.	8 ft. 3 in.	6 ft. 8 in.
88 inch	8 ft. 5 in.	9 ft. 4 in.	17 ft. 6 in.	2 ft. 4 in.	9½ in.	8 ft. 6 in.	7 ft. 4 in.
96 inch	9 ft. 1 in.	10 ft.	18 ft.	2 ft. 8 in.	10 in.	8 ft. 9 in.	8 ft.

New Pattern Hunt Cylinder Gate Turbines

9 IN.

Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Horse Power,	1.09	1.47	1.82	2.23	2.65	3.12	3.58	4.13	4.63	5.19	5.72	6.33	6.95	7.59	8.20	8.90
Cu. Ft. Minute,	142	155	168	179	190	201	210	220	229	237	246	254	266	269	277	284
Rev. Minute,	289	316	342	365	387	408	428	447	466	483	500	516	532	548	563	577
Head in Feet,	38	39	40	41	42	43	44	45	46	47	48	49	50	52	54	56
Horse Power,	23.07	23.98	24.92	25.89	26.84	27.82	28.78	29.75	31.11	32.11	33.18	34.22	35.23	37.47	39.47	41.78
Cu. Ft. Minute,	391	396	401	406	411	416	421	427	430	435	440	444	449	458	466	475
Rev. Minute,	796	806	817	827	837	847	857	866	876	885	895	904	913	931	949	966

12 IN.

Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Horse Power,	1.63	2.17	2.61	3.32	3.95	4.64	5.34	6.09	6.89	7.72	8.52	9.41	10.34	11.28	12.20	13.24
Cu. Ft. Minute,	203	229	247	264	280	296	310	324	337	350	362	374	386	398	408	418
Rev. Minute,	237	254	269	282	301	319	334	347	362	376	389	402	414	426	439	450
Head in Feet,	38	39	40	41	42	43	44	45	46	47	48	49	50	52	54	56
Horse Power,	34.14	35.48	37.00	38.75	40.10	41.62	42.27	44.24	45.83	47.33	48.90	50.42	51.87	55.06	58.24	61.56
Cu. Ft. Minute,	577	585	592	602	610	618	625	633	637	643	648	655	662	675	687	700
Rev. Minute,	620	628	636	644	652	660	668	676	684	692	700	708	717	732	748	764

New Pattern Hunt Cylinder Gate Turbines

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**
9.49	10.25	10.97	11.71	12.45	13.21	13.90	14.69	15.50	16.40	17.50	17.90	18.26	19.72	20.50	21.25	22.16
290	297	304	311	317	324	330	336	341	347	353	359	365	370	375	381	386
591	606	619	633	646	658	671	683	695	707	719	730	742	753	764	775	785

58	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**82**	**85**	**90**	**95**	**100**
44.02	46.08	48.65	51.03	53.01	55.92	58.37	60.91	63.45	66.03	68.69	71.00	74.03	78.14	84.88	92.20	99.60
483	491	500	508	516	523	531	539	547	553	560	568	575	585	600	618	634
983	1000	1016	1033	1049	1066	1080	1096	1112	1127	1140	1155	1169	1190	1225	1258	1291

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**
14.16	15.25	16.29	17.38	18.51	19.49	20.69	21.85	23.17	24.35	25.46	26.65	27.94	29.21	30.29	31.42	32.78
428	439	448	458	468	477	486	495	503	512	521	529	538	545	553	562	569
462	472	483	494	504	514	523	534	544	553	562	571	580	588	596	604	612

58	**60**	**62**	**64**	**66**	**68**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**78**	**80**	**82**	**85**
64.88	68.27	71.70	75.20	78.72	82.33	85.98	87.74	89.76	91.60	93.51	95.43	97.35	101.17	105.10	109.03	115.16
713	725	737	748	760	772	783	788	794	799	805	810	816	826	837	847	863
780	794	810	826	840	857	873	880	888	895	904	910	917	933	947	961	982

15 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	3.29	4.34	5.47	6.69	7.96	9.36	10.79	12.30	13.90	15.58	17.17	18.99	20.90	22.79	24.60	26.70
Cu. Ft. Minute,	426	466	504	539	571	603	632	659	687	712	738	762	785	808	830	852
Rev. Minute,	189	207	224	238	253	266	280	292	304	315	326	337	347	357	367	376
Head in Feet,	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**	**56**
Horse Power,	69.20	71.97	74.78	77.65	80.54	83.44	86.31	89.18	93.35	96.34	99.56	102.66	105.71	112.14	118.56	125.25
Cu. Ft. Minute,	1174	1190	1204	1219	1235	1249	1263	1278	1292	1306	1320	1333	1347	1374	1399	4125
Rev. Minute,	518	524	530	536	543	549	556	563	570	576	582	589	596	610	622	634

18 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power	5.15	6.77	8.52	10.41	12.46	14.60	16.81	19.18	21.64	24.19	2681	29.52	32.22	35.27	38.13	41.16
Cu. Ft. Minute,	665	738	787	841	892	941	986	1030	1072	1112	1152	1189	1226	1262	1297	1330
Rev. Minute,	150	165	176	189	201	213	226	236	246	256	266	276	286	294	302	310
Head in Feet,	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**	**56**
Horse Power,	107.42	112.34	116.44	120.54	125.46	129.56	132.15	137.54	144.00	148.63	153.56	158.37	163.08	172.97	182.90	193.32
Cu. Ft. Minute,	1833	1857	1881	1904	1928	1950	1973	1996	2017	2039	2060	2081	2103	2145	2185	2225
Rev. Minute,	434	439	444	449	455	460	465	470	475	480	485	490	496	507	518	530

21 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	7.17	9.44	11.90	14.54	17.35	20.36	23.46	26.74	30.22	33.82	37.31	41.25	45.21	49.43	53.25	57.82
Cu. Ft. Minute,	927	1020	1096	1172	1242	1311	1374	1435	1494	1549	1604	1656	1708	1759	1807	1853
Rev. Minute,	133	144	153	165	176	186	198	207	216	225	234	242	251	258	266	273
Head in Feet,	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**	**56**
Horse Power,	150.24	156.55	162.53	168.57	175.06	181.16	190.07	196.29	200.63	207.08	213.97	220.65	227.21	240.99	254.81	269.34
Cu. Ft. Minute,	2554	2588	2620	2653	2686	2717	2749	2780	2810	2841	2871	2899	2930	2988	3044	3100
Rev. Minute,	377	382	387	391	396	401	408	416	422	428	434	439	444	454	463	473

RODNEY	HUNT	MACHINE	COMPANY'S	NEW	PATTERN	CYLINDER	GATE	TURBINES								
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**
28.49	30.73	32.91	34.90	37.39	39.60	41.71	44.09	46.74	49.20	51.35	53.71	56.30	58.16	61.51	63.77	66.51
873	893	913	933	952	971	990	1008	1026	1043	1060	1077	1094	1110	1126	1143	1159
386	395	402	411	417	427	436	445	454	461	467	476	484	490	497	504	511
58	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**81**	**82**	**83**	**84**	**85**
132.05	138.97	145.37	153.12	160.25	167.77	175.15	182.72	190.44	198.07	206.05	213.36	217.90	222.00	225.75	230.54	234.43
1451	1475	1500	1522	1548	1571	1594	1616	1639	1660	1682	1705	1715	1725	1735	1746	1756
646	658	670	681	692	703	714	726	738	750	760	771	776	782	787	793	798

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**
44.28	47.47	50.75	54.12	57.56	61.00	64.53	68.22	71.91	75.60	79.45	82.82	86.92	91.02	95.12	99.22	103.32
1363	1394	1423	1454	1484	1513	1542	1570	1598	1625	1652	1679	1705	1730	1756	1784	1809
319	327	335	342	351	357	364	372	379	385	390	398	403	410	418	423	429
58	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**81**	**82**	**83**	**84**	**85**
203.72	214.39	225.19	235.62	247.11	258.79	270.19	281.88	293.67	305.60	317.85	330.07	336.31	342.46	348.85	355.65	361.64
2265	2303	2342	2378	2416	2453	2488	2524	2559	2593	2626	2660	2677	2693	2709	2726	2742
541	552	563	573	583	593	602	612	621	631	640	649	654	659	664	669	673

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**
61.88	66.72	71.28	76.08	80.93	86.09	90.46	95.61	100.14	106.41	111.35	116.33	121.99	128.02	133.38	138.55	144.33
1898	1942	1985	2028	2071	2111	2151	2191	2233	2267	2304	2342	2379	2413	2449	2486	2521
279	287	292	299	305	311	317	323	329	335	340	345	350	356	362	367	372
58	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**81**	**82**	**83**	**84**	**85**
283.85	298.70	314.23	329.05	344.44	360.56	376.44	392.73	409.17	425.79	442.85	459.88	468.57	477.11	486.03	495.51	503.80
3156	3209	3262	3315	3367	3417	3467	3516	3565	3612	3659	3707	3730	3752	3775	3798	3820
483	491	499	507	515	521	529	537	544	552	558	565	569	572	575	578	582

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

24 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	9.20	12.12	15.28	18.67	22.24	26.12	30.11	34.30	38.80	43.46	47.92	52.99	58.20	63.59	68.31	74.49
Cu. Ft. Minute,	1188	1301	1406	1503	1593	1681	1762	1840	1916	1986	2057	2124	2189	2255	2317	2375
Rev. Minute,	117	124	130	141	151	160	170	178	186	194	202	209	216	223	230	236
Head in Feet,	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**
Horse Power,	216.6	224.6	232.7	237.8	247.2	257.2	266.5	273.3	282.9	291.3	299.9	309.0	317.9	326.7	336.0	345.3
Cu. Ft. Minute,	3401	3444	3484	3525	3565	3603	3643	3681	3717	3757	3794	3832	3869	3903	3938	3975
Rev. Minute,	333	337	342	347	352	356	360	365	369	373	378	382	386	390	394	398

27 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	11.48	15.13	19.07	23.31	27.77	32.61	37.59	42.82	48.44	54.25	59.84	66.15	72.66	79.39	85.51	93.01
Cu. Ft. Minute,	1494	1636	1768	1890	2040	2114	2216	2314	2410	2498	2588	2672	2754	2836	2914	2988
Rev. Minute,	104	111	117	126	136	144	152	160	167	173	181	188	194	200	206	212

30 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	13.77	18.14	22.87	27.95	33.30	39.10	45.06	51.35	58.08	65.05	71.75	79.32	87.12	95.19	105.7	111.5
Cu. Ft. Minute,	1778	1947	2104	2249	2385	2516	2637	2754	2868	2973	3080	3180	3277	3375	3468	3556
Rev. Minute,	90	98	104	112	121	128	134	141	148	153	160	166	172	176	182	187

33 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	16.87	22.19	27.99	34.23	40.79	47.98	55.07	62.88	71.13	79.67	87.87	97.15	106.7	116.5	125.7	136.5
Cu. Ft. Minute,	2181	2389	2581	2759	2926	3087	3235	3378	3518	3647	3778	3891	4021	4141	4254	4362
Rev. Minute,	82	89	96	103	110	117	123	129	135	141	147	153	159	164	170	174

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

36 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	19.97	26.24	33.12	40.52	48.27	56.86	65.32	74.41	84.18	94.30	104.0	114.9	126.2	137.9	148.7	161.6
	Cu. Ft. Minute,	2577	2822	3050	3260	3457	3647	3823	3992	4157	4309	4464	4609	4751	4892	5027	5154
	Rev. Minute,	74	81	87	93	102	107	112	118	124	129	133	139	143	147	151	156
39 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	23.36	30.74	38.78	47.40	56.47	66.62	76.42	87.13	98.50	110.3	121.7	134.5	147.7	161.4	174.1	188.6
	Cu. Ft. Minute,	3018	3305	3578	3818	4048	4270	4476	4674	4868	5046	5228	5397	5563	5729	5886	6036
	Rev. Minute,	68	75	81	87	93	99	104	109	115	120	124	129	133	137	140	145
42 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	26.76	35.25	44.43	54.27	64.67	76.27	87.53	99.84	112.8	126.3	139.4	154.0	169.2	184.9	199.4	215.6
	Cu. Ft. Minute,	3452	3771	4086	4368	4632	4886	5122	5348	5570	5773	5977	6176	6365	6555	6735	6902
	Rev. Minute,	63	69	75	80	85	91	96	101	106	110	114	118	123	126	129	133
45 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	28.92	38.10	47.99	58.64	69.92	82.02	94.55	107.8	121.6	136.1	150.5	166.8	182.4	199.0	215.6	233.2
	Cu. Ft. Minute,	3780	4139	4473	4782	5070	5348	5606	5854	6097	6320	6548	6760	6968	7175	7372	7560
	Rev. Minute,	58	65	70	75	80	86	90	95	99	103	107	111	115	118	122	125
48 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	31.05	40.90	51.52	62.97	75.07	88.06	101.1	115.5	130.5	146.1	161.6	178.6	195.8	213.6	231.4	250.4
	Cu. Ft. Minute,	4109	4499	4862	5196	5511	5814	6094	6364	6628	6870	7117	7348	7574	7799	8014	8217
	Rev. Minute,	52	60	66	71	75	81	85	89	93	97	100	103	107	111	114	117

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
172.4	186.1	199.2	212.6	226.3	239.7	252.5	266.8	282.9	297.8	310.8	325.1	340.8	358.0	372.2	385.9	402.5	418.9	435.6	452.7
5282	5403	5527	5644	5765	5879	5989	6100	6203	6314	6417	6521	6624	6721	6817	6917	7014	7107	7200	7290
160	164	168	172	176	179	182	186	189	193	196	200	203	206	209	212	215	217	220	223

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
201.6	217.1	232.4	247.7	264.3	281.2	294.9	311.1	329.3	348.2	362.2	379.3	397.6	416.5	434.3	451.4	470.8	489.9	509.4	529.4
6185	6327	6472	6609	6751	6884	7013	7143	7264	7393	7514	7636	7757	7870	7983	8100	8213	8322	8431	8540
148	152	156	159	163	166	169	173	176	179	182	186	189	192	195	197	199	201	204	206

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
230.7	248.1	265.7	282.8	302.3	320.8	337.2	355.5	375.8	398.6	413.6	433.4	454.4	474.9	496.3	516.9	539.1	560.9	583.3	606.2
7073	7235	7401	7558	7720	7872	8020	8168	8307	8455	8593	8732	8870	9000	9129	9263	9392	9517	9642	9762
136	140	143	147	150	153	157	160	163	165	168	171	174	176	178	180	182	185	187	189

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
249.6	268.5	287.4	306.0	327.0	347.1	364.8	384.6	406.6	431.2	447.5	468.9	491.6	513.8	537.0	559.2	583.2	606.9	630.3	655.8
7747	7924	8106	8278	8455	8622	8784	8946	9098	9260	9412	9563	9715	9857	9999	10145	10287	10424	10560	10692
128	131	134	137	140	143	147	150	153	155	158	161	163	165	167	169	171	174	176	178

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
268.0	288.2	308.6	328.5	341.8	372.6	391.7	412.9	436.5	463.8	480.4	503.4	527.7	551.5	576.5	603.2	626.1	651.5	678.3	704.1
8421	8613	8811	8998	9191	9372	9548	9724	9889	10065	10230	10395	10560	10714	10868	11028	11182	11330	11479	11622
120	122	125	128	131	134	137	140	142	145	147	150	152	154	156	158	160	162	164	166

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

51 IN.

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Head in Feet,																
Horse Power,	26.32	36.90	48.46	61.09	74.25	89.05	104.3	120.3	137.1	154.8	172.6	191.8	210.7	231.2	251.7	273.0
Cu. Ft. Minute,	4309	4818	5376	5702	6095	6463	6818	7147	7463	7772	8054	8346	8617	8882	9146	9390
Rev. Minute,	43	50	57	63	66	71	76	81	85	88	91	94	98	104	108	112

54 IN.

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Head in Feet,																
Horse Power,	30.67	42.84	56.44	71.13	86.95	103.5	121.5	140.1	159.6	180.5	202,2	223.0	246.6	270.8	295.9	319.3
Cu. Ft. Minute,	4943	5528	6053	6542	6993	7415	7822	8199	8562	8917	9243	9576	9886	10190	10493	10782
Rev. Minute,	44	49	54	60	64	68	72	76	80	83	86	89	92	95	98	101

57 IN.

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Head in Feet,																
Horse Power,	34.65	48.40	63.76	80.36	98.21	116.9	137.3	158.3	180.3	204.0	228.5	252.0	278.6	306.0	334.3	360.7
Cu. Ft. Minute,	5584	6245	6838	7390	5900	8377	8836	9263	9672	10074	10447	10818	11169	11512	11854	12180
Rev. Minute,	39	44	50	56	60	64	68	71	75	78	82	84	87	90	93	95

60 IN.

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Head in Feet,																
Horse Power,	38.63	53.96	71.08	89.59	109.4	130.4	153.1	176.4	201.1	227.4	254.7	280.9	310.6	341.1	372.7	402.2
Cu. Ft. Minute,	6226	6962	7624	8239	8807	9339	9851	10327	10783	11231	11651	12060	12452	12834	13216	13579
Rev. Minute,	34	40	46	52	56	60	64	66	70	74	77	80	83	86	88	90

66 IN.

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Head in Feet,																
Horse Power,	42.90	59.93	78.94	99.49	121.5	144.8	170.1	196.0	223.3	252.5	282.9	312.0	344.9	378.8	413.9	446.6
Cu. Ft. Minute,	6914	7731	8466	9149	9781	10371	10940	11468	11975	12472	12927	13393	13828	14252	14676	15080
Rev. Minute,	29	35	41	48	51	55	58	61	64	68	71	73	76	79	81	83

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
295.2	317.3	340.3	364.0	387.8	412.4	437.0	462.4	488.7	514.9	541.2	569.0	594.9	624.8	653.5	683.0
9636	9875	10101	10333	10552	10778	10991	11197	11404	11597	11804	11997	12191	12384	12464	12745
114	116	118	121	124	126	129	131	133	136	138	141	143	145	147	150

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
346.7	369.9	399.2	427.3	456.2	485.4	514.2	541.7	572.3	601.8	635.9	666.5	697.0	731.0	767.0	797.8
11056	11329	11588	11854	12106	12365	12609	12846	13083	13305	13542	13674	13986	14208	14415	14622
103	106	108	111	116	117	119	121	124	126	128	130	132	134	137	139

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
391.7	417.9	450.9	482.7	515.4	548.4	580.9	612.0	646.0	678.4	715.2	747.9	782.2	820.2	861.3	895.4
12490	12798	13091	13392	13676	13951	14245	14512	14780	15031	15299	15504	15800	16051	16285	16519
97	100	103	106	109	111	113	115	117	119	121	123	125	127	130	132

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
436.6	465.9	502.7	538.1	574.5	611.4	647.5	682.3	719.8	754.9	794.6	829.4	867.5	909.4	955.5	993.0
13924	14268	14595	14930	15247	15537	15881	16179	16478	16757	17056	17335	17615	17894	18155	18416
92	95	98	100	103	105	107	109	111	113	115	117	119	121	123	125

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
484.9	517.4	558.3	595.6	638.1	678.9	719.2	757.8	790.8	835.3	879.4	920.9	963.0	1008.2	1054.1	1101.1
15463	15846	16208	16580	16932	17294	17636	17967	18299	18609	18941	19251	19561	19872	20162	20452
86	88	90	92	94	97	99	101	103	105	107	109	111	113	115	117

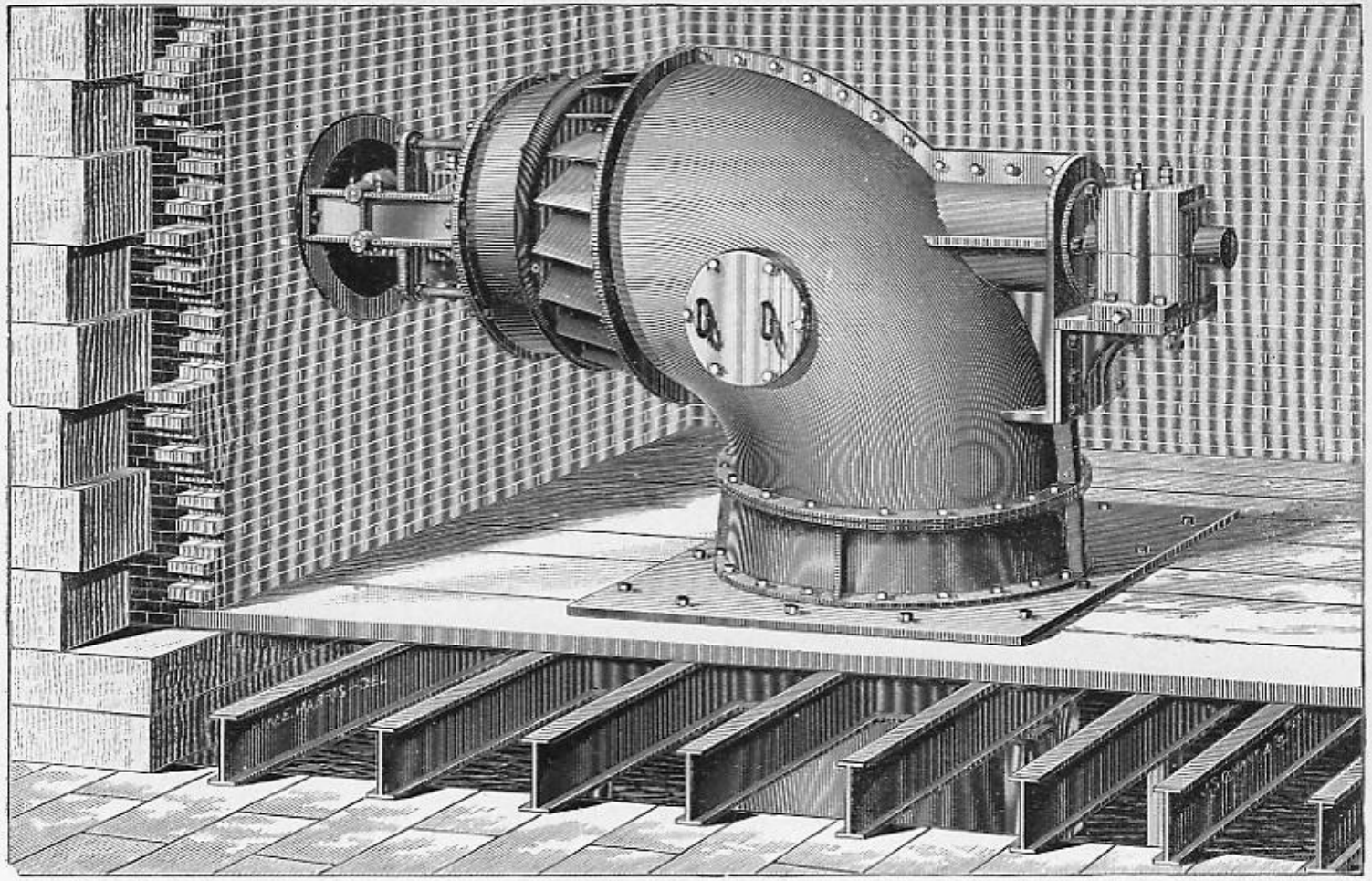
RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

72 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	83	109	133	168	201	236	272	310	350	392	433	479	526	563	620	673
	Cu. Ft. Minute,	10738	11758	12707	13585	14403	15195	15927	16632	17322	17953	18601	19205	19793	20383	20943	21476
	Rev. Minute,	41	45	47	50	55	58	62	65	68	70	73	76	79	81	84	86
80 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	108	142	174	219	261	306	353	403	455	510	562	621	682	742	806	874
	Cu. Ft. Minute,	13959	15285	16519	17660	18723	19753	20705	21621	22518	23338	24181	24966	25730	26487	27225	27918
	Rev. Minute,	37	40	43	46	50	53	56	58	61	64	66	68	71	73	75	77
88 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	144	189	240	294	348	411	474	540	612	684	756	834	918	1002	1080	1173
	Cu. Ft. Minute,	18735	20514	22170	23700	25131	26508	27789	29016	30222	31341	32454	33507	34536	35562	36540	37470
	Rev. Minute,	32	35	38	41	44	48	52	54	57	60	62	64	67	70	72	73
96 IN.	Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	Horse Power,	191	251	307	387	462	542	625	713	805	902	995	1100	1208	1305	1426	1547
	Cu. Ft. Minute,	24697	27043	29226	31245	33126	34948	36632	38253	39840	41291	42782	44171	45523	46870	48168	49394
	Rev. Minute,	28	30	33	37	40	43	47	50	53	56	59	61	64	67	70	71

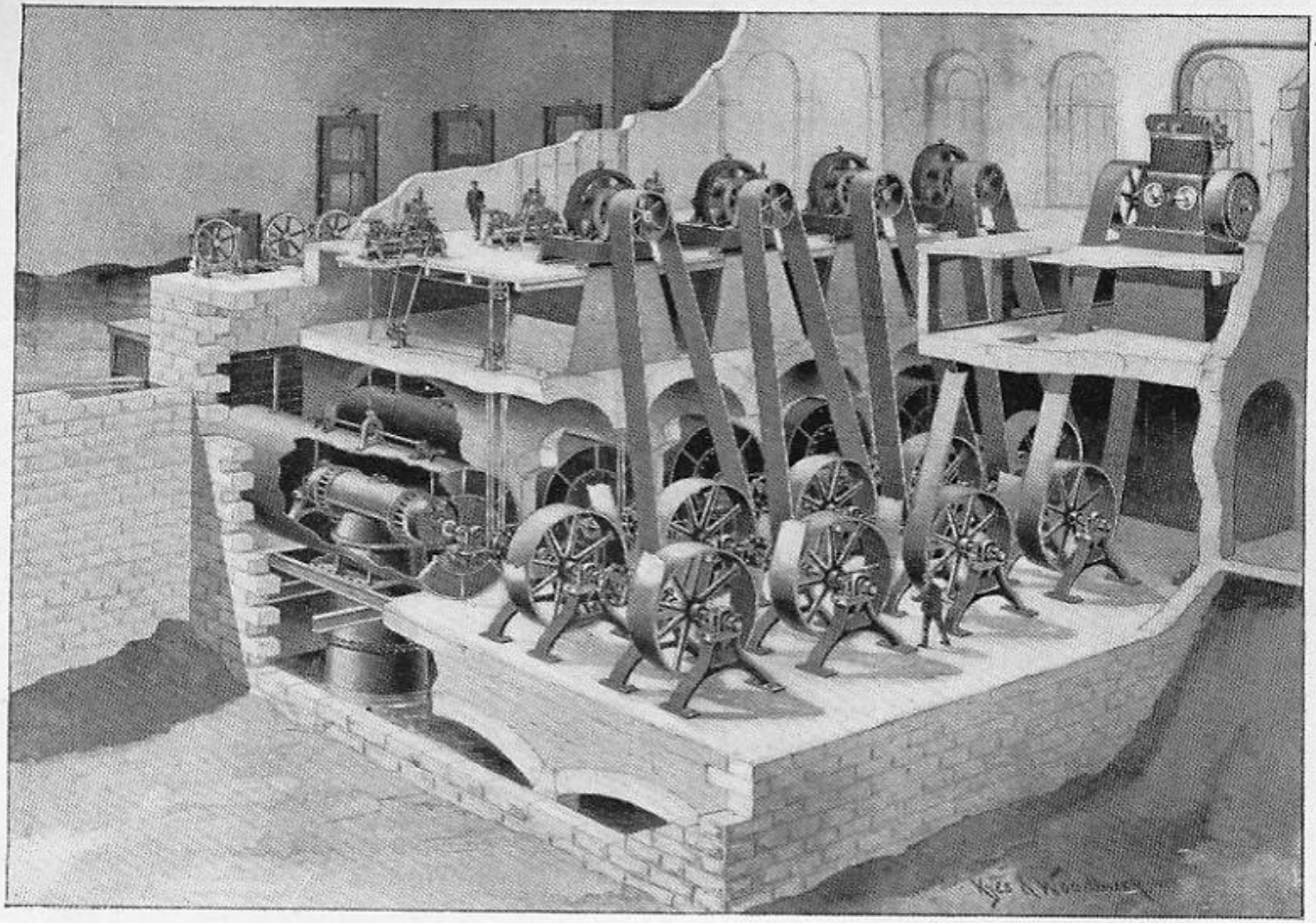
If desired to ascertain the power developed, and the amount of water used under higher heads than indicated in the foregoing tables, the following may be used as a data:

The quantity of water increases as the square root of the head. If the head is increased four times on the same wheel, proximately twice the quantity of water will be discharged, but the power will be increased eight times.

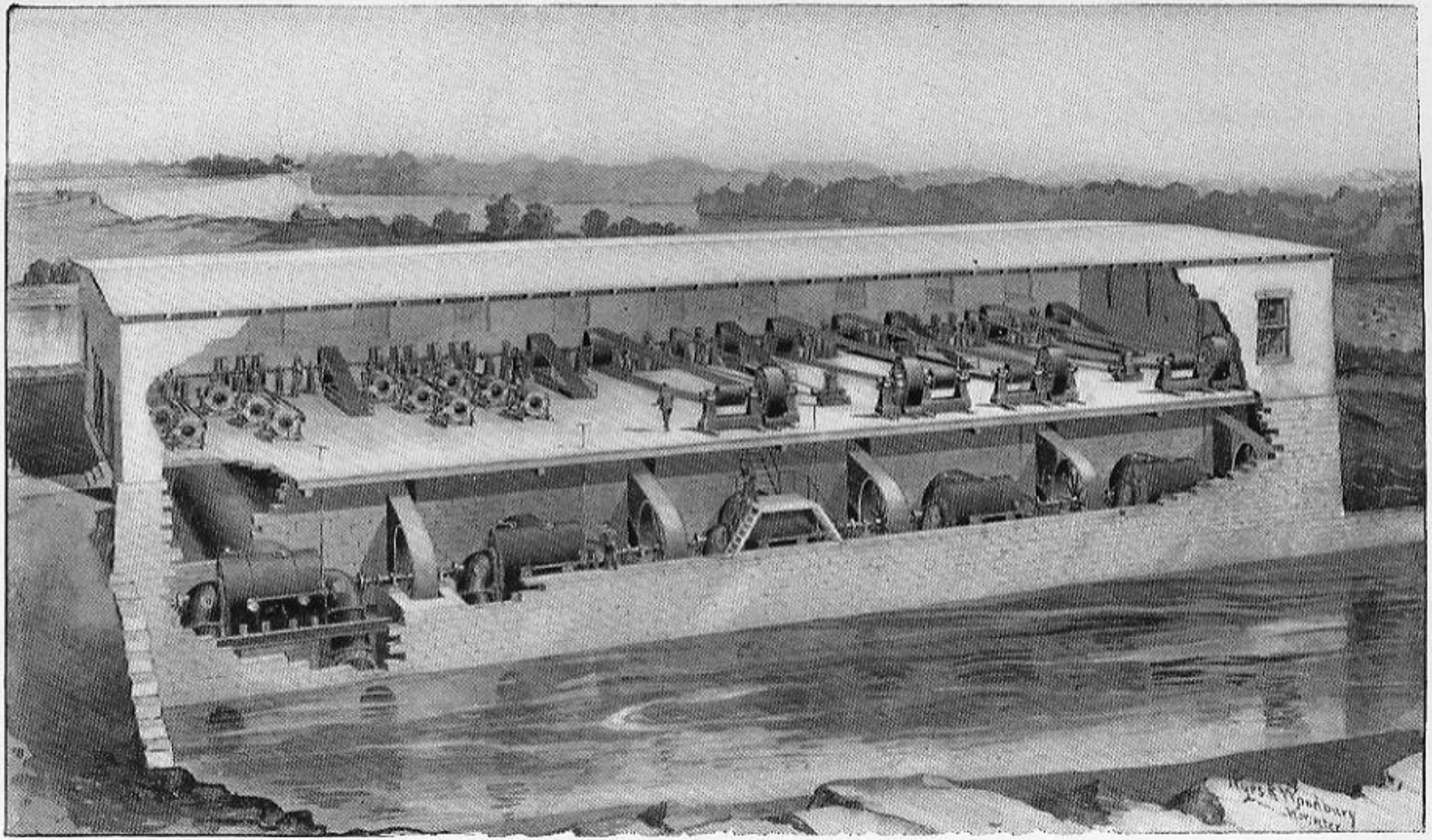
RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES



RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES



RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES



TURBINE ON HORIZONTAL SHAFT

In Cast Iron Case

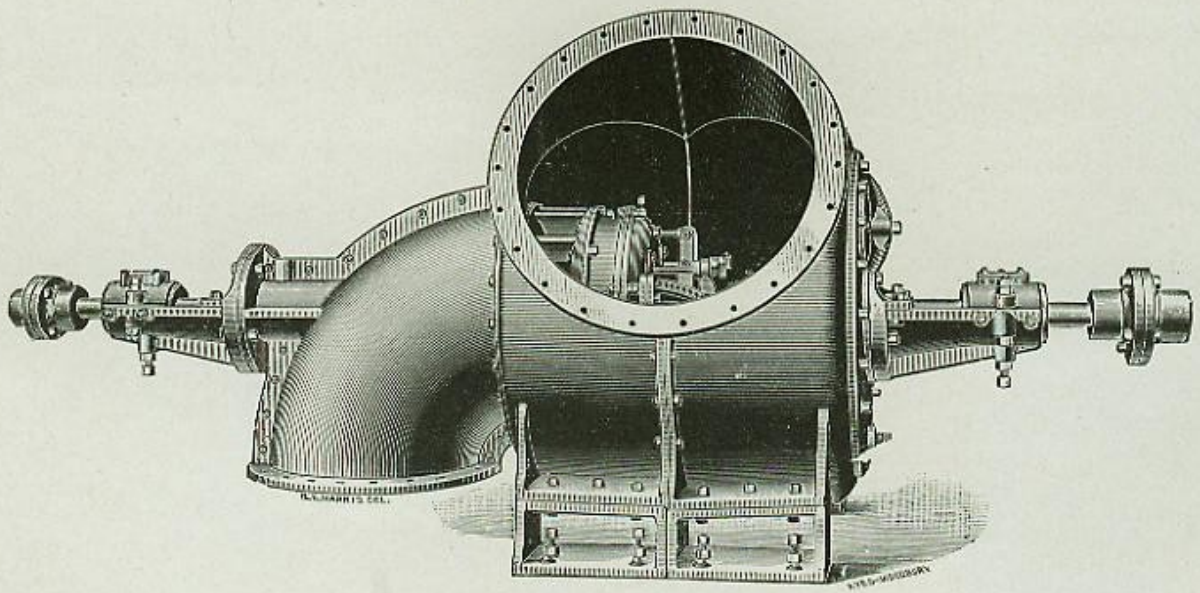


PLATE NO. 6, THIRTEENTH EDITION

This pattern of flume furnished for mounting our Turbines on vertical shaft, using a straight Draft-Tube in place of the quarter-turn, and taking off side flanges shown in the cut. Steel beams or cast iron posts furnished for supporting the vertical flume.

TABLE OF DIMENSIONS

For Turbine on Horizontal Shaft in Iron Case

Size of Wheel	Price of Wheel and case all complete as shown in plate	Diameter of inlet opening to case for ordinary fall	Diameter of outlet or quarter-turn, for ordinary fall	Distance from face of inlet flange to center of wheel	Vertical distance from outlet flange to center of wheel	Vertical distance from foundation to center of wheel	Length of wheel shaft from face to face of couplings	Horizontal distance from center of case to face of coupling nearest case	Horizontal distance from center of case to center draft-tube
9 in.	$ 375 00	18 in.	15 in.	1 ft. 7½ in.	1 ft. 3 in.	1 ft. 2 in.	9 ft.	3 ft. 6 in.	2 ft. 4 in.
12-No. 2	400 00	24 in.	18 in.	1 ft. 11½ in.	1 ft. 6 in.	1 ft. 4 in.	9 ft. 11 in.	3 ft. 11 in.	2 ft. 11½ in.
12-No. 1	400 00	24 in.	18 in.	1 ft. 11½ in.	1 ft. 6 in.	1 ft. 4 in.	9 ft. 11 in.	3 ft. 11 in.	2 ft. 11½ in.
15	500 00	30 in.	24 in.	2 ft. 2 in.	1 ft. 9 in.	1 ft. 6 in.	11 ft. 4 in.	4 ft. 3 in.	3 ft. 5 in.
18	600 00	36 in.	28 in.	2 ft. 6 in.	1 ft. 11 in.	1 ft. 8 in.	12 ft.	4 ft. 8 in.	3 ft. 11 in.
21	700 00	39 in.	31 in.	2 ft. 8 in.	2 ft. ½ in.	1 ft. 10 in.	13 ft.	4 ft. 11 in.	4 ft. 2 in.
24	800 00	42 in.	34 in.	2 ft. 10 in.	2 ft. 2 in.	2 ft.	13 ft. 11 in.	5 ft. 2 in.	4 ft. 6 in.
27	950 00	45 in.	37 in.	3 ft.	2 ft. 3½ in.	2 ft. 2 in.	14 ft. 3 in.	5 ft. 3½ in.	4 ft. 8 in
30	1,100 00	48 in.	40 in.	3 ft.	2 ft. 5 in.	2 ft. 2 in.	14 ft. 8 in.	5 ft. 4½ in.	4 ft. 11 in.
33	1,250 00	54 in.	43 in.	3 ft. 4 in.	2 ft. 7½ in.	2 ft. 6 in.	15 ft. 6 in.	5 ft. 8½ in.	5 ft. 3½ in.
36	1,400 00	63 in.	46 in.	3 ft. 9 in.					
39	1,550 00	70 in.	49 in.	4 ft. 2 in.					

For Diameter of Wheel Shaft, see page 5

The diameter of inlet opening above is for heads up to 15 feet head. If the head is more it may be advisable to use larger opening by taking next size flume.

PAIR OF TURBINES ON HORIZONTAL SHAFT

In Cast Iron Case, Discharging through Separate Draft-Tubes

Both Gates Operated With One Projecting Gate Shaft Like This Cut, or Each Wheel May Be Provided With Independent Projecting Gate Shaft

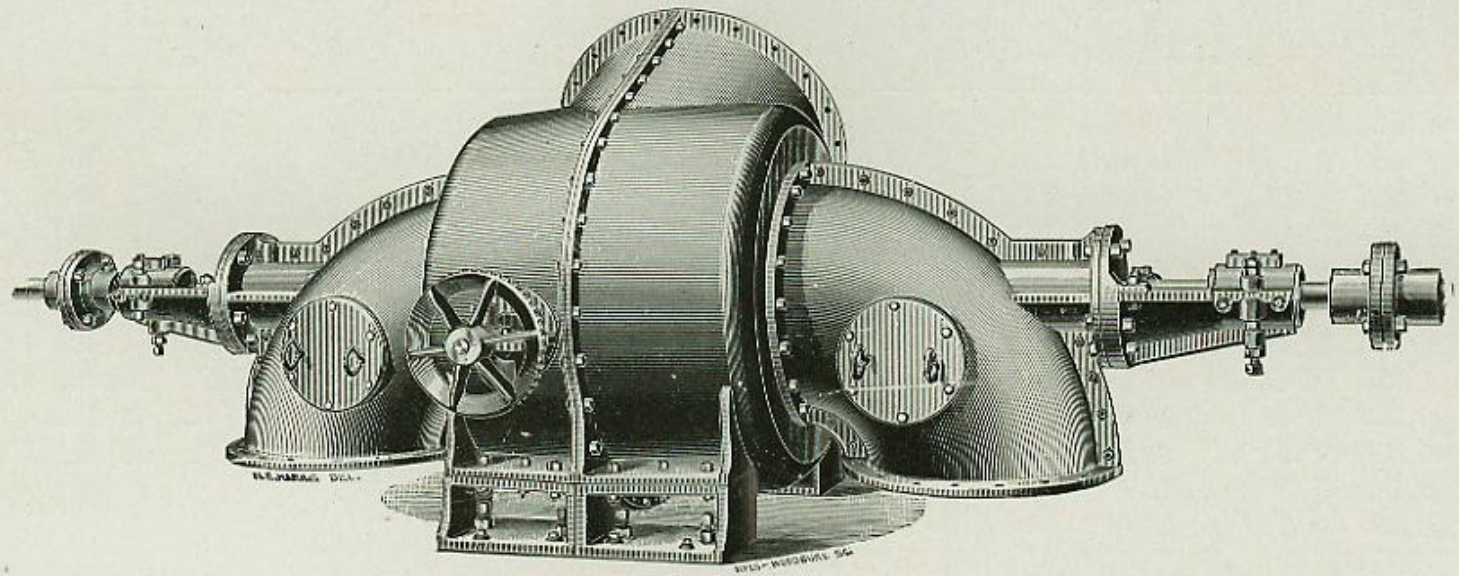


TABLE OF DIMENSIONS

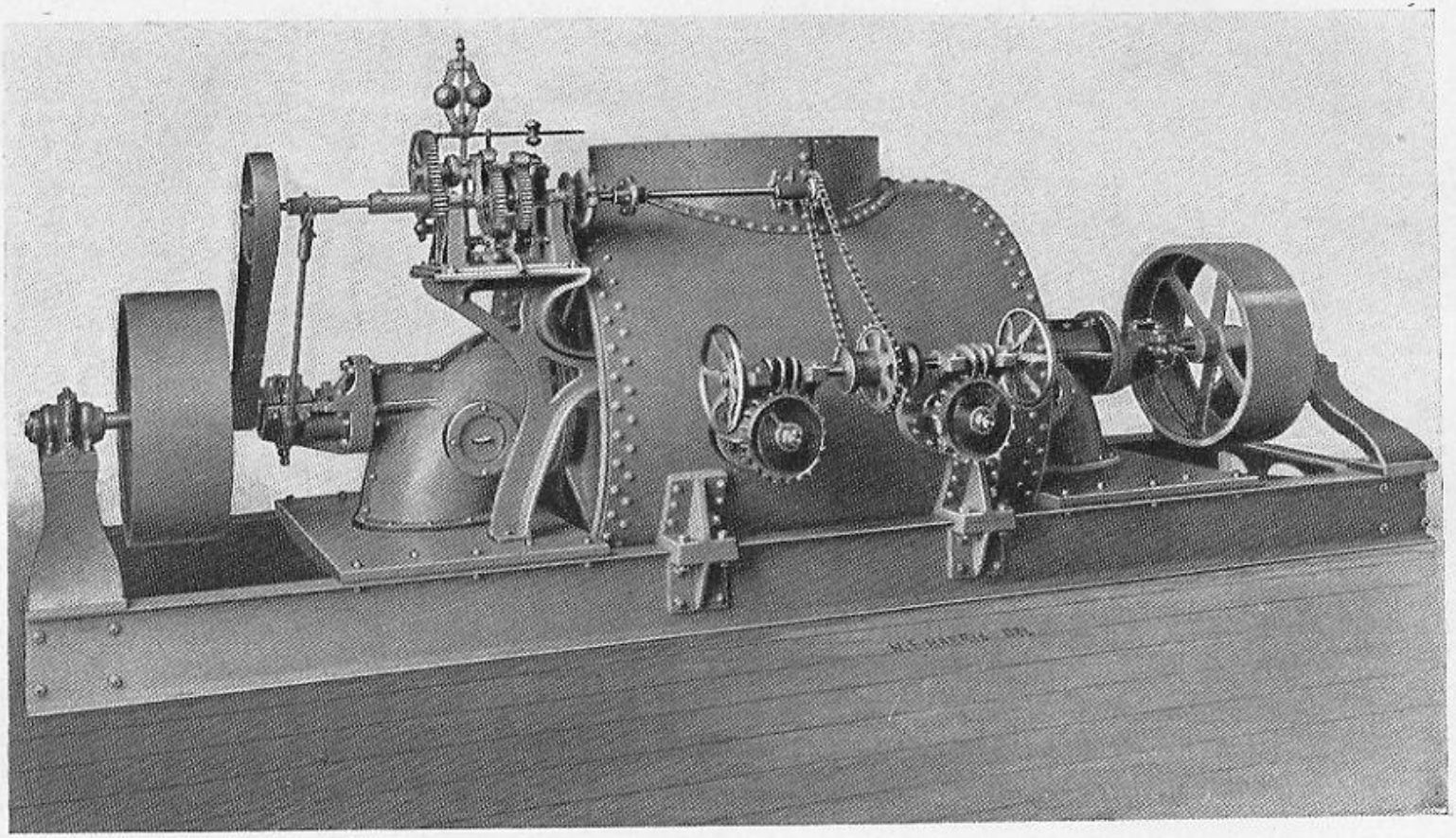
For Pair of Turbines on Horizontal Shaft in Iron Case.

Size of Wheels	Price of wheels and case complete as shown in cut	Diameter of inlet opening to case for ordinary fall	Diameter of outlet or quarter-turns for ordinary fall	Distance from face of inlet flange to center of wheels	Vertical distance from outlet flange to center of wheels	Vertical distance from foundation to center of wheel	Length of wheel shaft from face to face coupling	Diameter of wheel shaft	Horizontal distance from center of case to center draft-tube
9 in.	$ 650 00	24 in.	15 in.	1 ft. 11½ in.	1 ft. 3 in.	1 ft. 4 in.	11 ft.	2 in.	2 ft. 10 in.
12-No. 2	700 00	30 in.	18 in.	2 ft. 2 in.	1 ft. 6 in.	1 ft. 6 in.	12 ft.	2 in.	3 ft. 2 in.
12-No. 1	750 00	36 in.	21 in.	2 ft. 6 in.	1 ft. 6 in.	1 ft. 8 in.	13 ft.	2½ in.	3 ft. 7½ in.
15	800 00	39 in.	24 in.	2 ft. 8 in.	1 ft. 9 in.	1 ft. 10 in.	14 ft.	2½ in.	3 ft. 10½ in.
18	975 00	45 in.	28 in.	3 ft.	1 ft. 11 in.	2 ft. 2 in.	15 ft.	3 in.	4 ft. 3½ in.
21	1,200 00	54 in.	31 in.	3 ft. 4 in.	2 ft. ½ in.	2 ft. 6 in.	16 ft. 4 in.	3½ in.	5 ft. 9 in.
24	1,350 00	63 in.	34 in.	3 ft. 9 in.	2 ft. 2 in.	2 ft. 10 in.	18 ft. 6 in.	4 in.	6 ft. 2 in.
27	1,550 00	70 in.	37 in.	4 ft. 2 in.	2 ft. 3½ in.	2 ft. 3 in.	19 ft. 8 in.	4½ in.	6 ft. 8 in.

For Diameter of Shaft, see Shafting Table

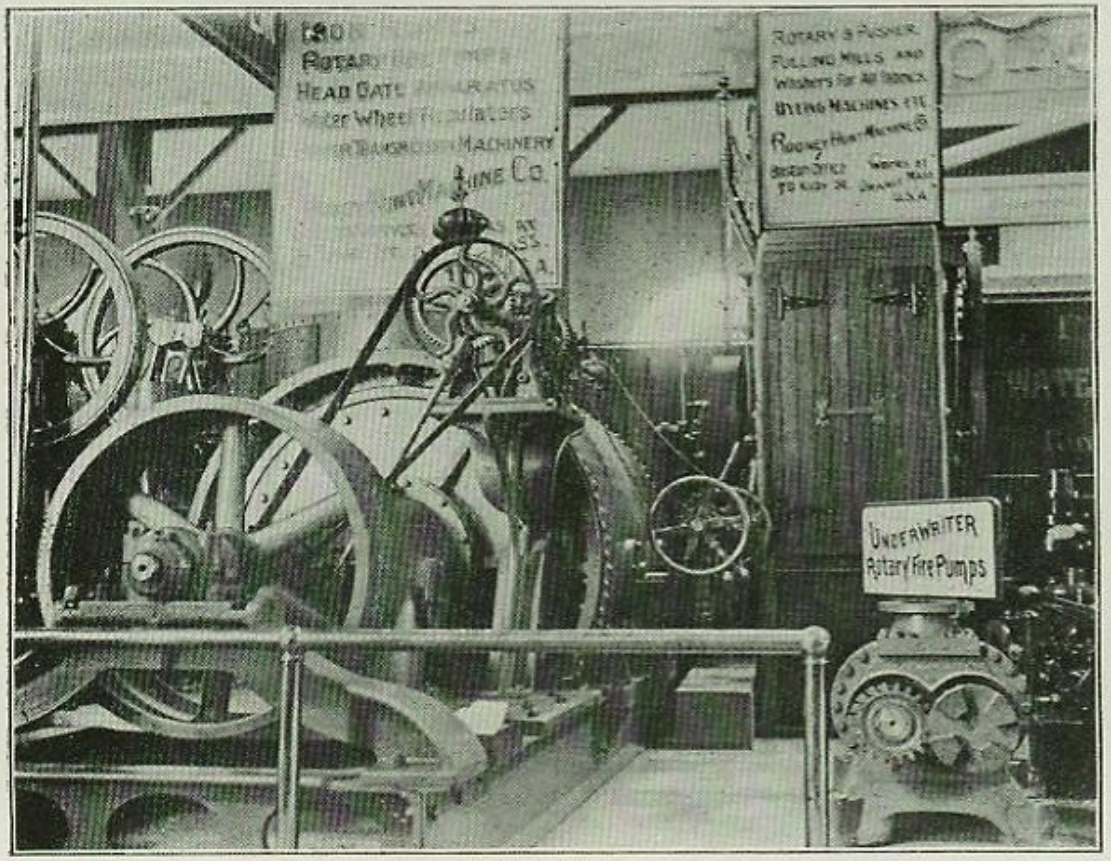
If the head is more than 15 ft. it may be advisable to use flume with larger inlet opening, especially if connected with extra large penstock. Approximately one sq. ft. in area for each 250 cu. ft. of water.

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

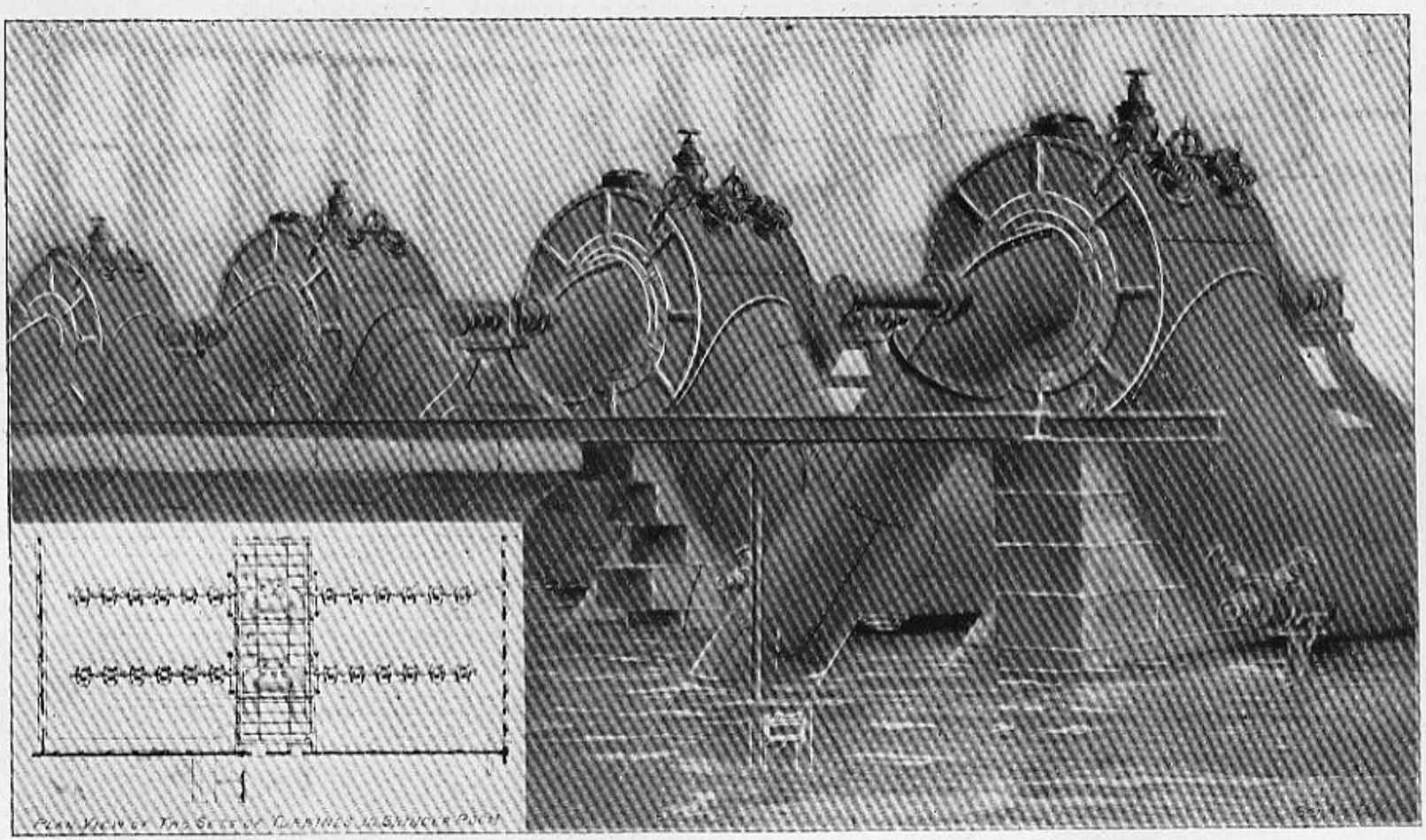


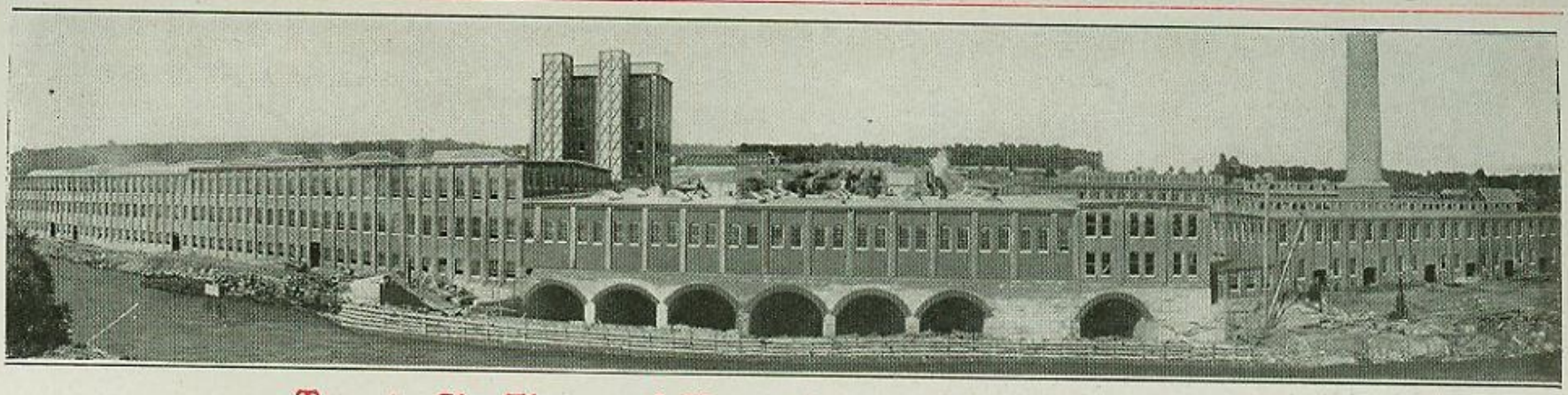
PAIR OF OUR NEW PATTERN HUNT TURBINES

And Underwriter Rotary Fire Pump



with our Machinery exhibited at the Pan-American Exhibition at Buffalo, which received the highest award, a Gold Medal. It may be interesting to note that the total number of exhibits examined by the various juries aggregated 7,000, and that 150 persons served upon the juries. The detail work of the juries was passed upon by a superior jury of about forty members, who determined finally and without appeal the order of merit of the awards.





Twenty-Six Thousand Horse Power Under 110 Feet Fall

In the Mammoth Plant of the Great Northern Paper Company, Millinocket, Maine, erected in 1900

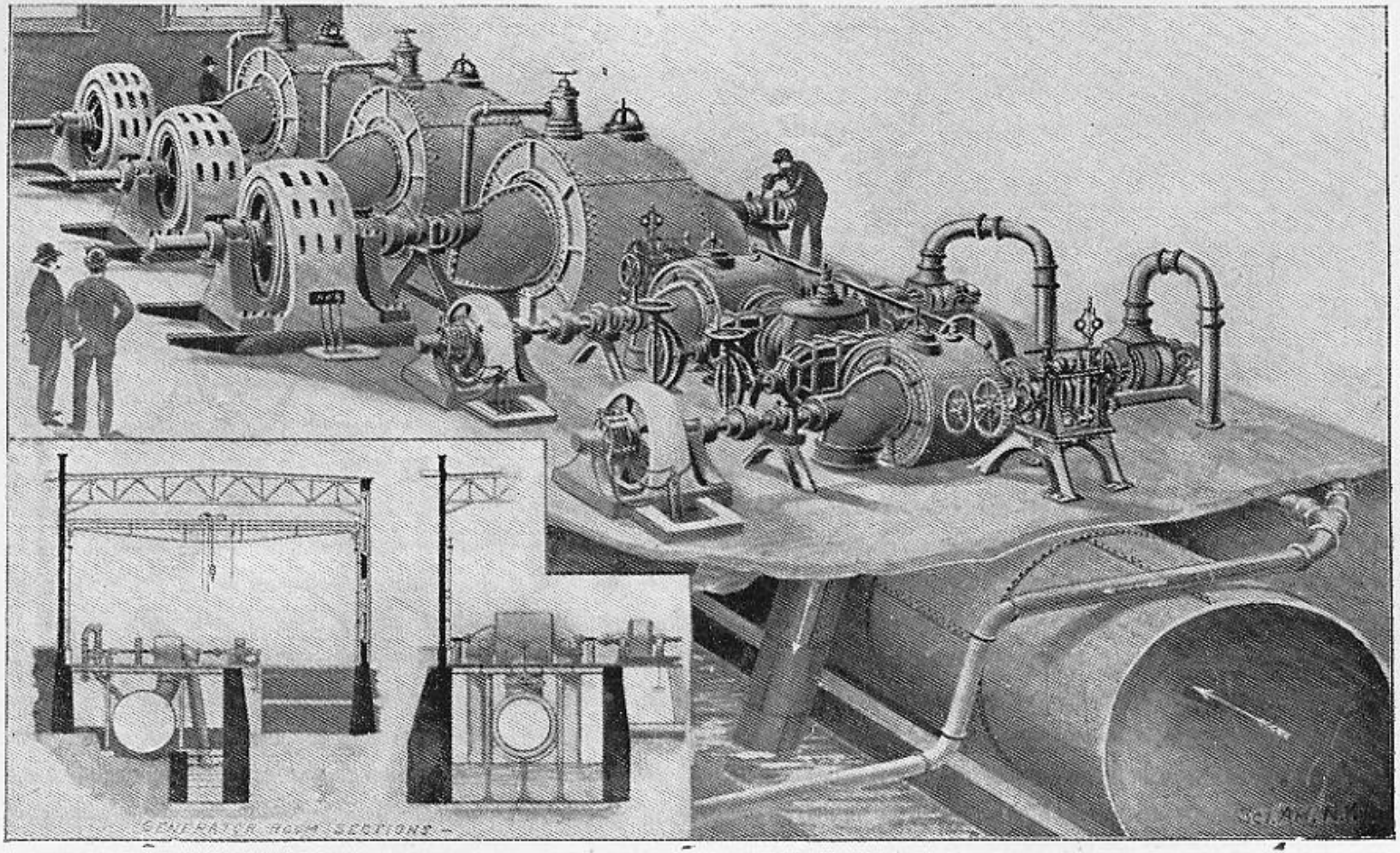
(From the Scientific American of April 13th, 1901)

The contract for making and installing the hydraulic plant was given to the Rodney Hunt Machine Co., of Orange, Mass. (Boston office, 70 Kilby St.), who have equipped the power house with 16 of their well-known New Pattern Hunt turbines, of the horizontal type, with plain cylinder gates. The aggregate capacity of the turbines, as determined by the Holyoke tests, to which more detailed reference is made below, is about 22,000 horse power under the normal head. By far the greatest demand for power comes from the grinding room, where at present there are installed turbines of an aggregate of 15,600 horse power. In the main generating room there are installed three units, each consisting of a pair of 36-inch turbines, mounted on horizontal shafting in the same way as the 57-inch turbines in the grinder room. Each unit is direct-connected to a 1,000-kilowatt, 600-volt, General Electric Company's tri-phase generator. In front of these three units are two single 24-inch turbines, each of which is direct-connected to a 60-kilowatt exciter. The exciter turbines also serve to operate two brass, 1,000 gallons each, underwriter fire pumps, made by the Rodney Hunt Machine Company. They are provided with powerful, friction grooved wheels, by which they can be thrown in or out of gear, as desired. Attention is also drawn to the regulators, made by the Rodney Hunt Machine Company, which are attached to the gate shafts.

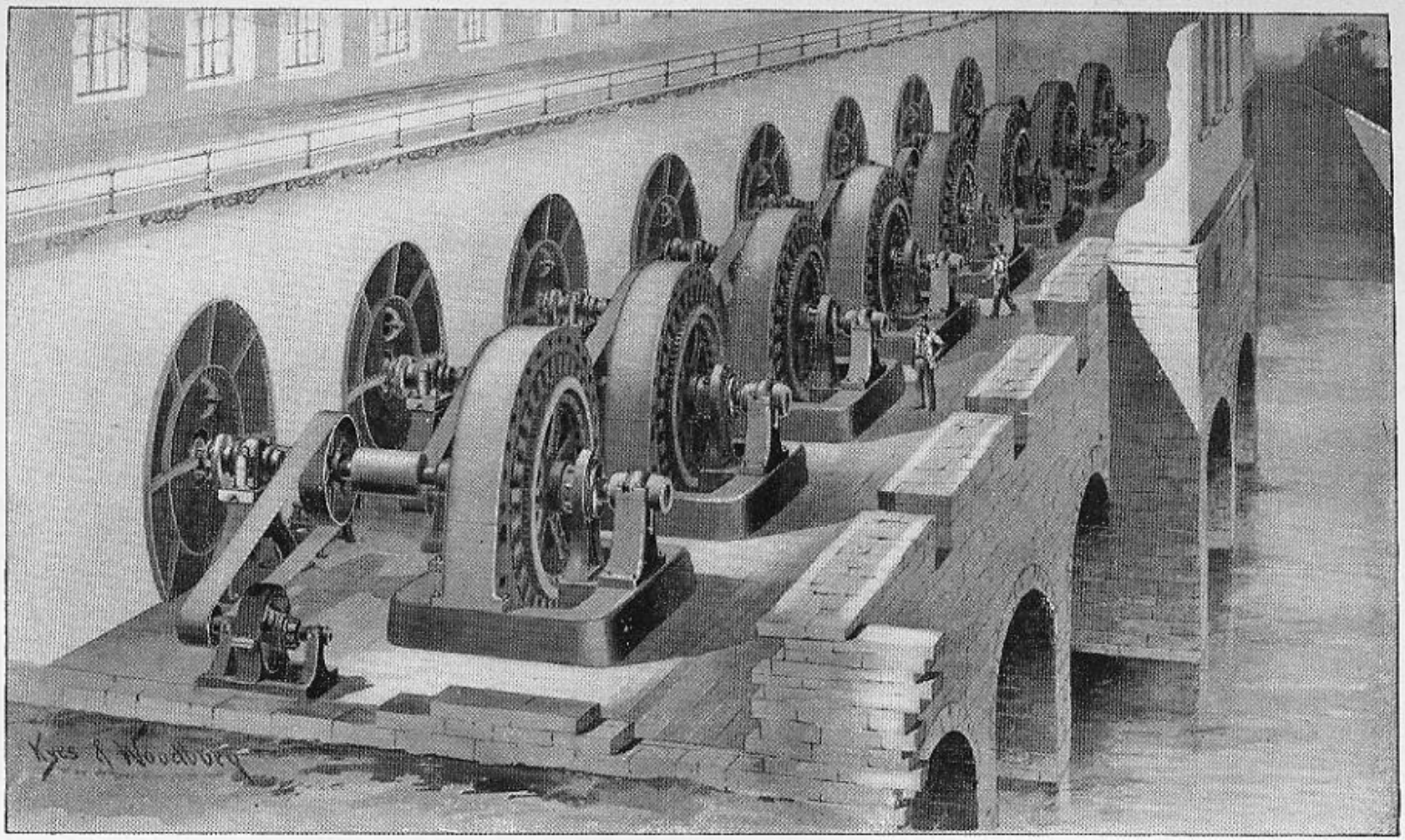
EFFICIENCY TESTS.—Particular interest attaches to the tests for efficiency, which were carried out upon two of the turbines before they were shipped to Millinocket. The test was made at the flume of the Holyoke Water Power Co., of Holyoke, Mass. The 57-inch turbine showed an efficiency of 85.93 per cent. at full gate; from ¾ gate to full gate it showed an average efficiency of 83.17 per cent. The 36-inch turbine showed an efficiency of 85.89 per cent. at full gate, an average efficiency of 84.70 per cent. from ¾ gate to full gate, as compared with the guaranteed efficiency of 80 per cent. from ¾ to full gate. The horse power guarantee was also exceeded considerably. This is certainly a very remarkable showing, particularly if we bear in mind that, on account of the exceptional head of 110 feet under which the turbines operate, the runner and guide chutes had to be made of steel and of unusual thickness, conditions which are not by any means conducive to high efficiency.

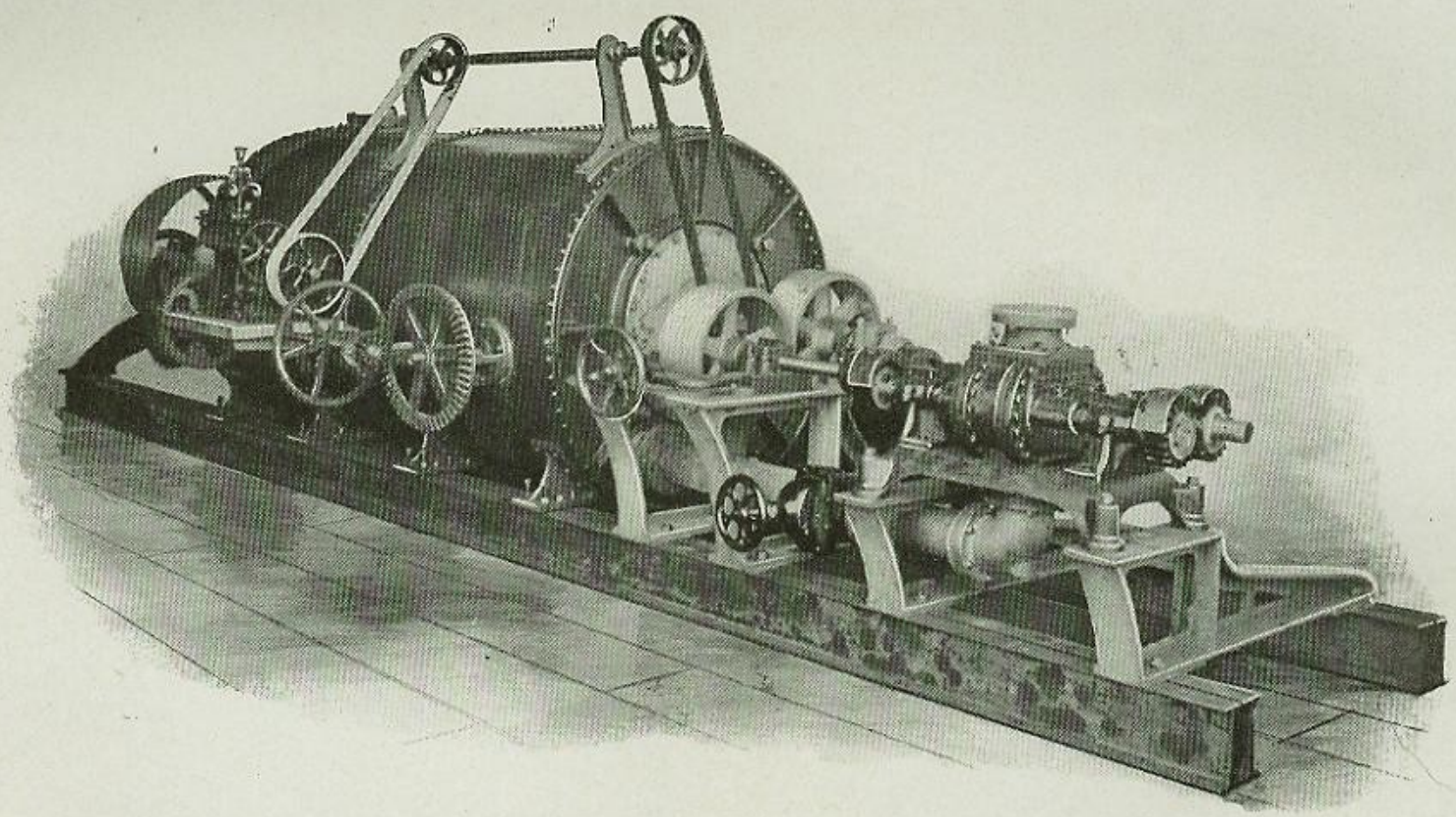
Since the above article in the Scientific American we have installed another pair of 4,000 horse power Wheels in the grinding room, making fully 26,000 horse power in their mill. See cut on opposite and the following pages. **Rodney Hunt Machine Co.**

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES



RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES





PAIR OF TURBINES ON HORIZONTAL SHAFT

With Cast Iron Center, Discharging into One Draft-Tube. Designed to Set into Iron Flume

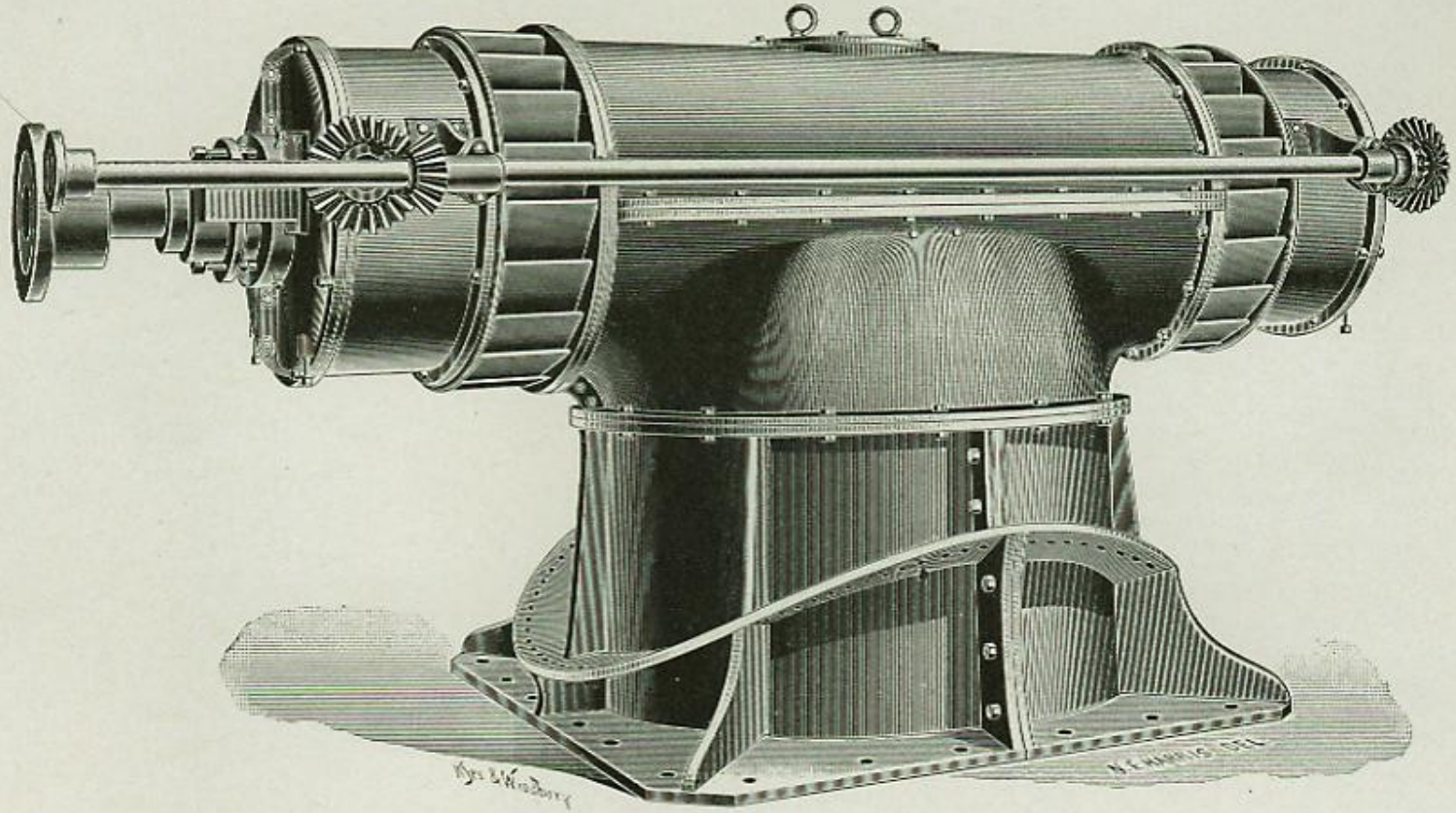
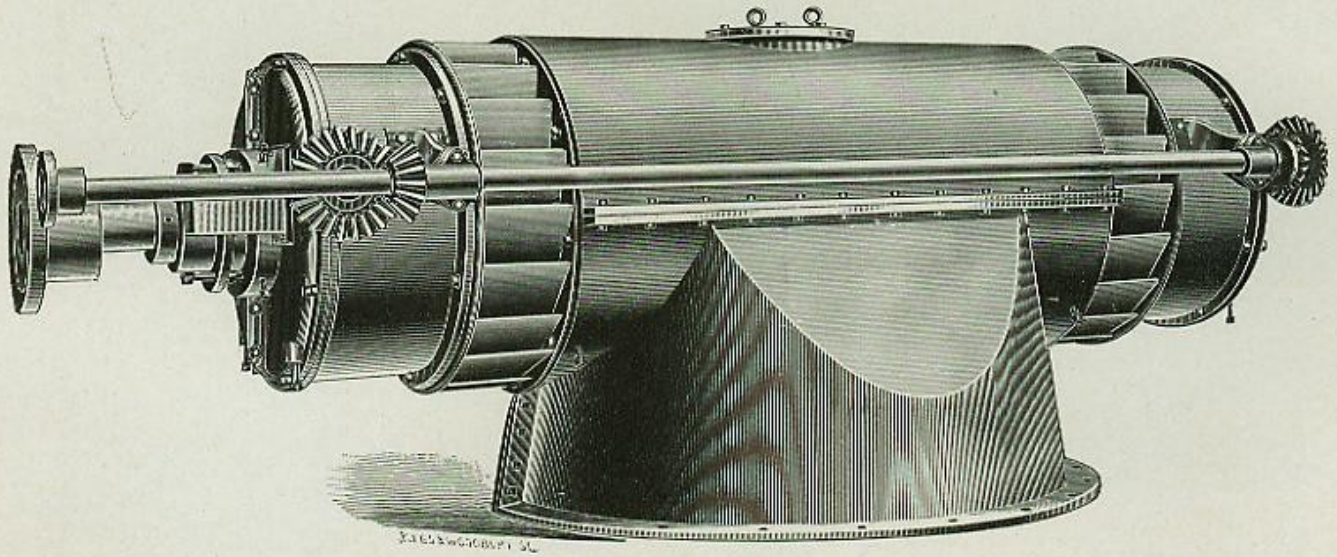


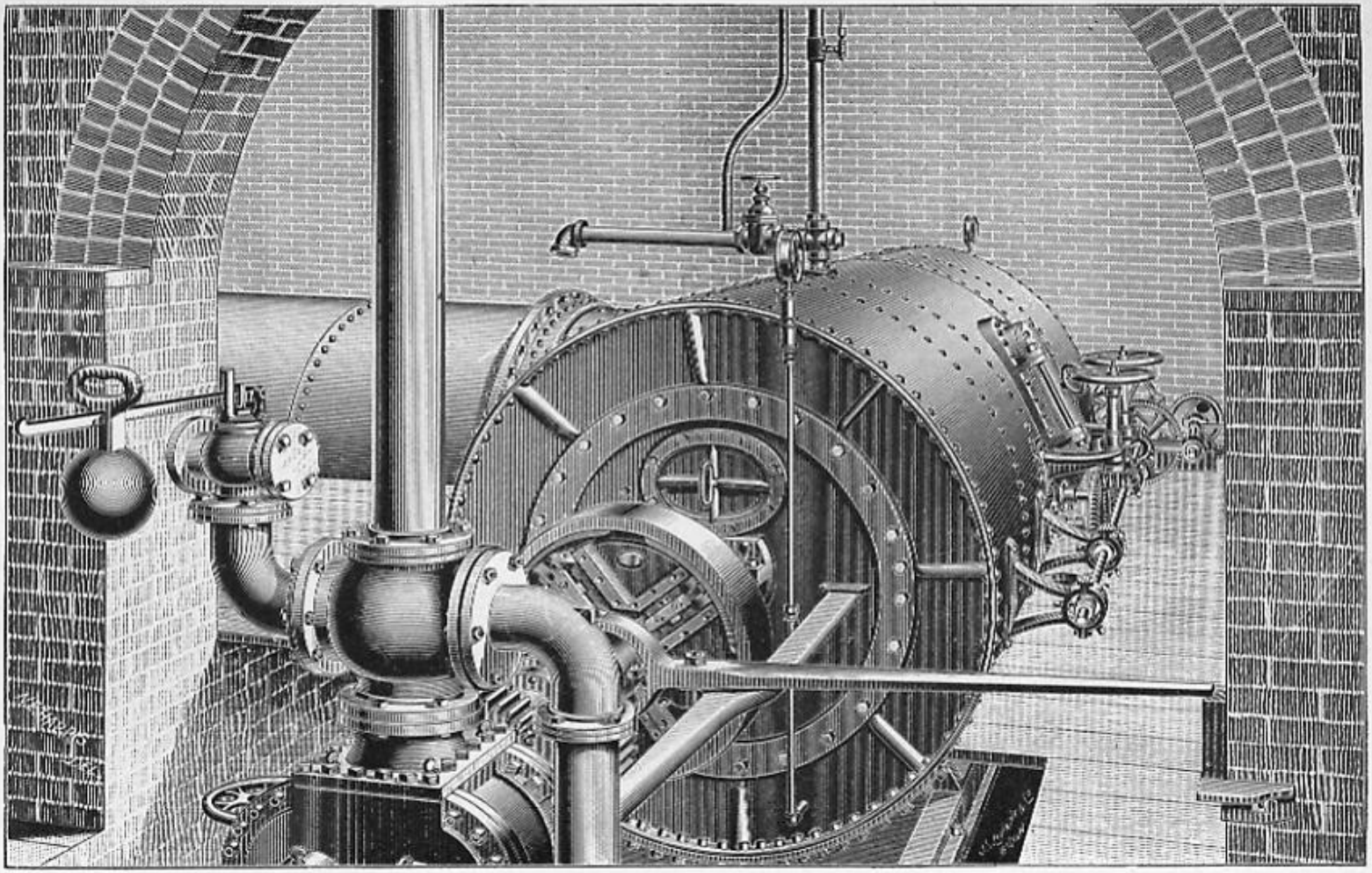
PLATE NO. 12. FOURTEENTH EDITION

PAIR OF TURBINES ON HORIZONTAL SHAFT

With Cast Iron Center, Discharging into One Draft-Tube. Designed to Set in Iron, Stone or Wood Flume

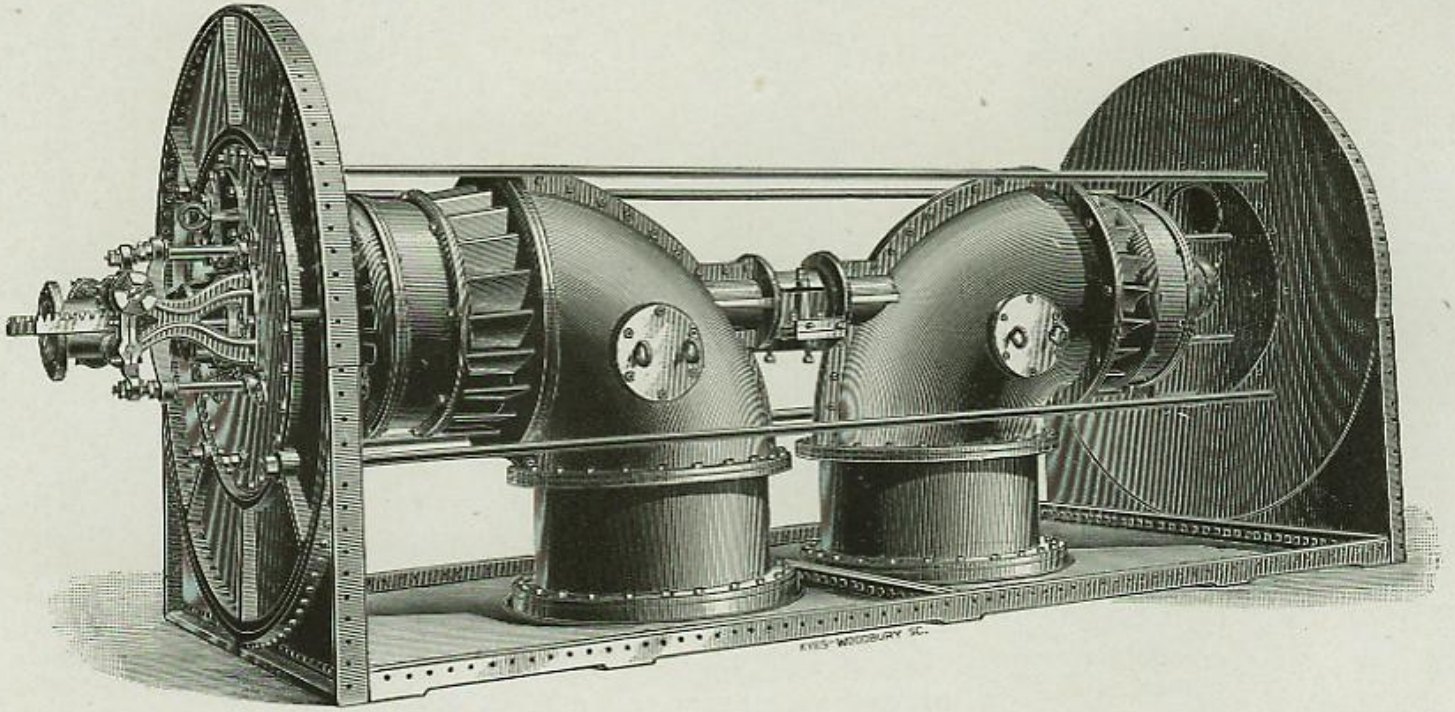


RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

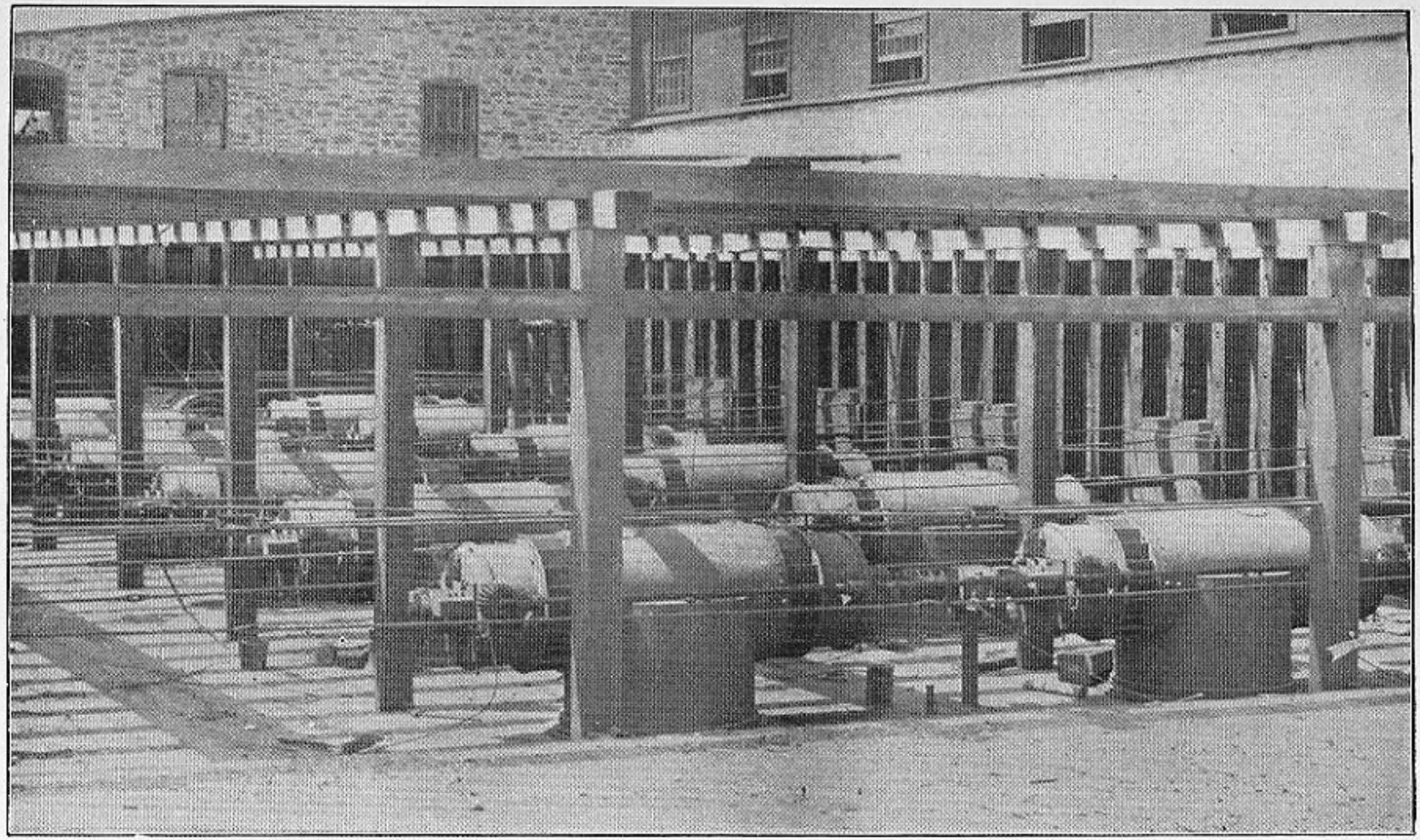


PAIR OF TURBINES ON HORIZONTAL SHAFT

With Cast Iron Quarter-Turns, Discharging Through Separate Draft-Tubes. Flume enclosing Wheels is made of Plate Iron, with Cast Iron Heads and Bottom; or may be placed in Stone or Wood Flume



RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES



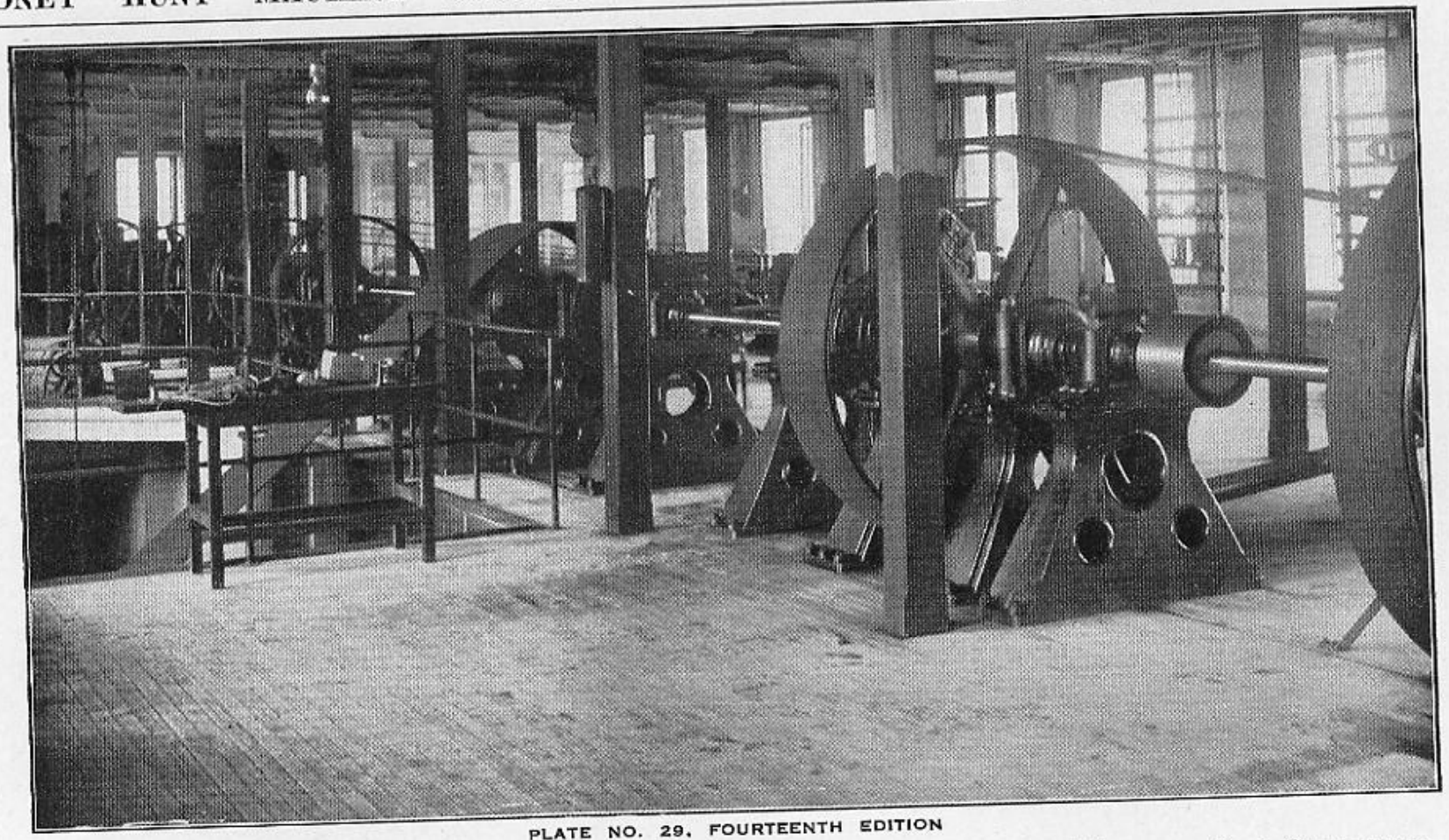


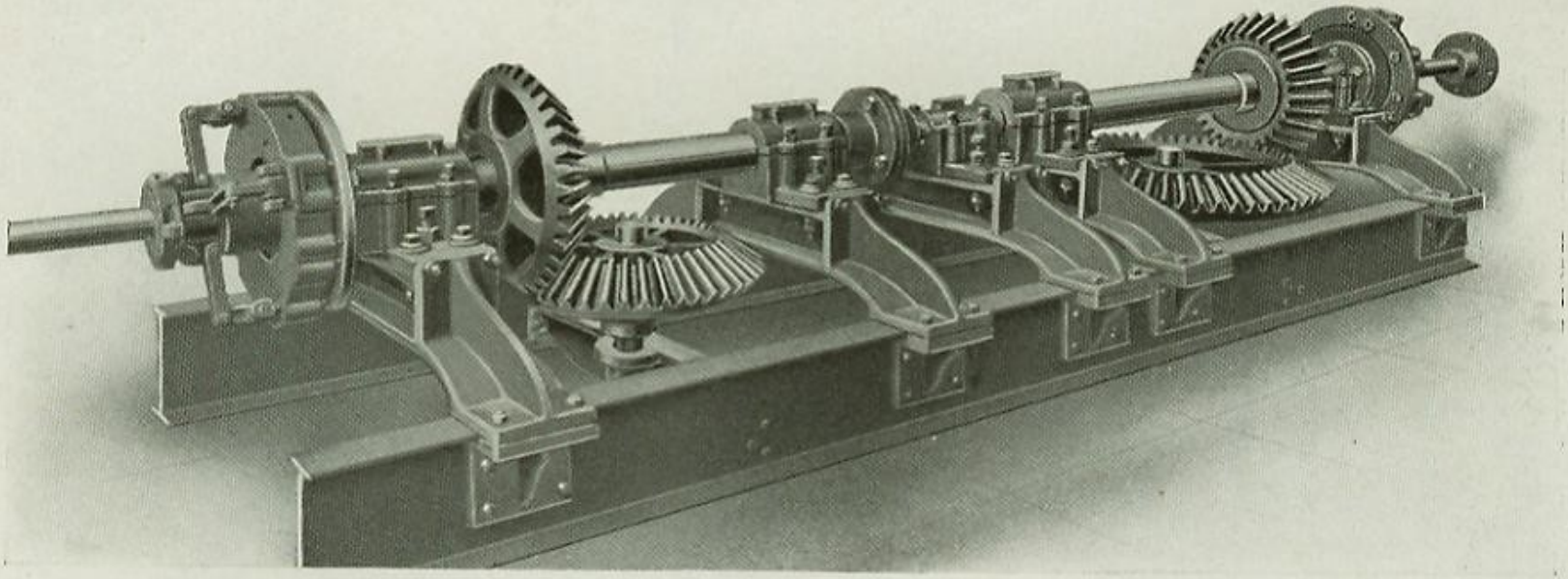
PLATE NO. 29. FOURTEENTH EDITION

A pair of our Turbines connected to a line of shafting, etc., we furnished for operating Generators. Our Regulator controlling speed.

TWO PAIR OF MACHINE CUT BEVEL GEARS

Connecting Two of Our Vertical Shaft Turbines

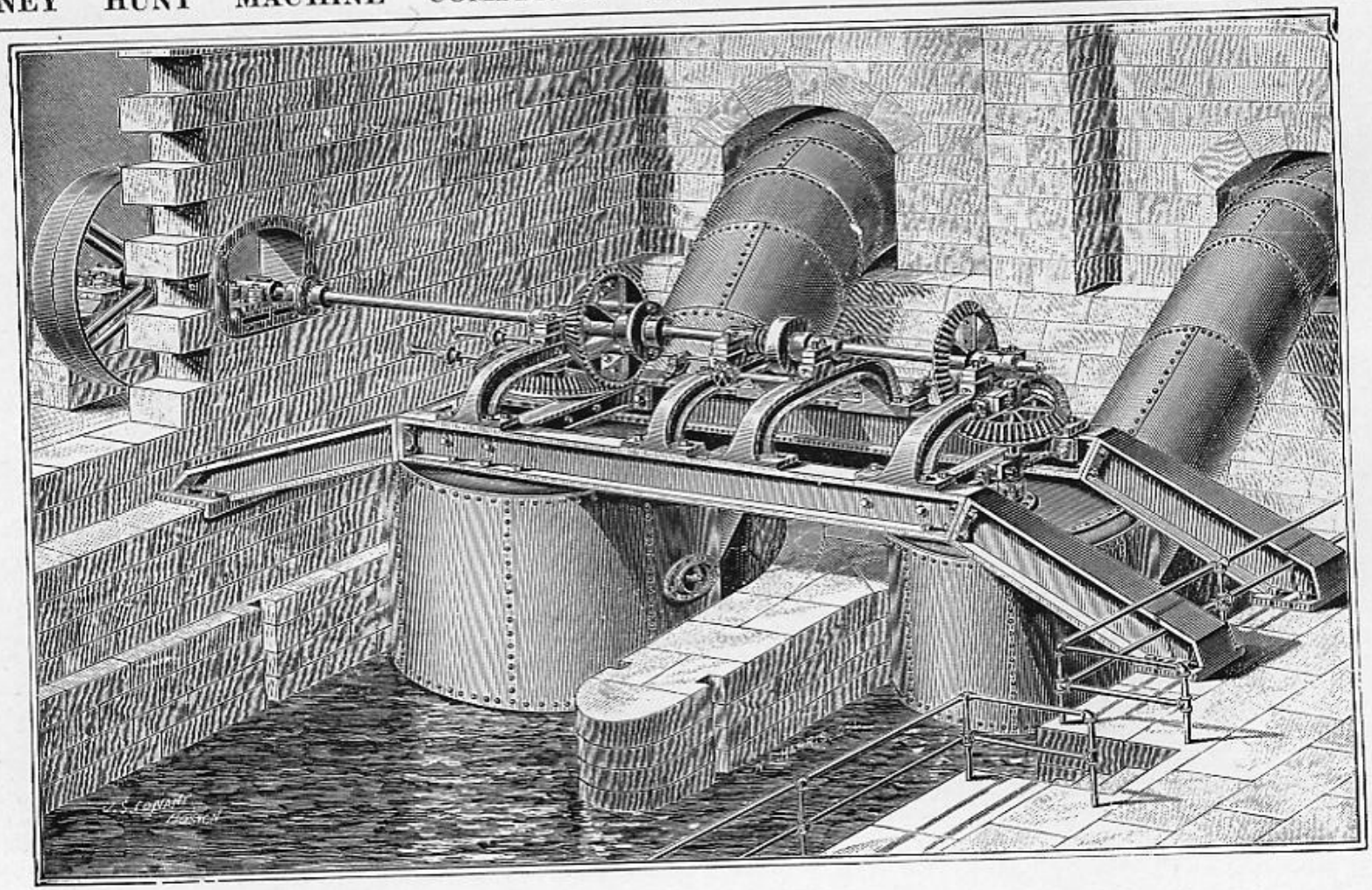
One 50 Per Cent. More Capacity Than the Other With Horizontal Main Shaft

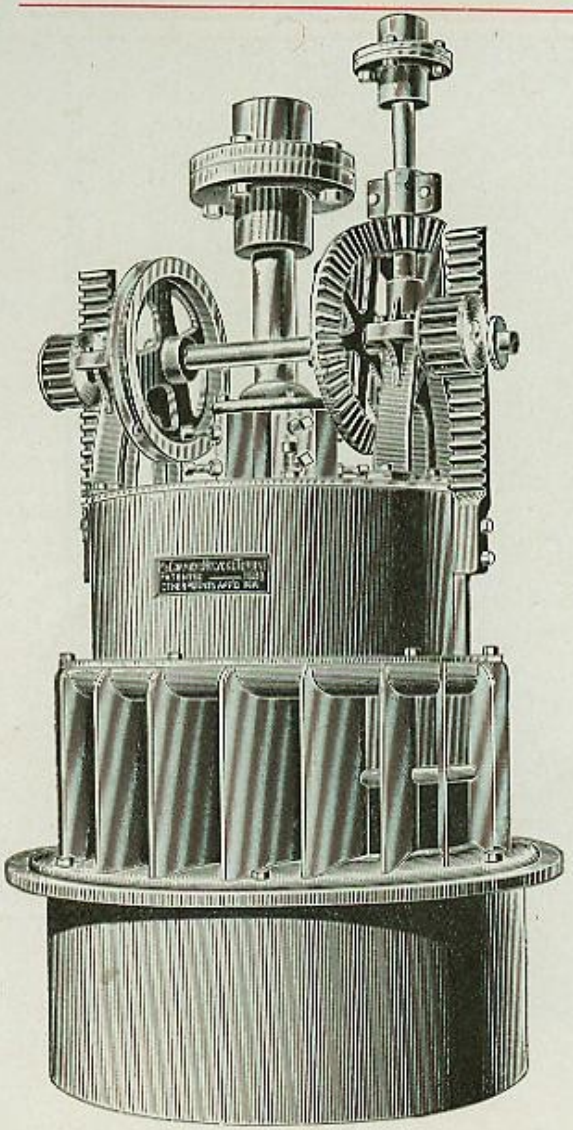


Each pinion gear is mounted on a steel sleeve with Worrall Friction Coupling for connecting or disconnecting either wheel when running.

The sleeve extends through two bearings which are mounted on cast iron yokes bolted to a pair of steel I - Beams.

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES





CYLINDER GATE

McCormick's Turbine

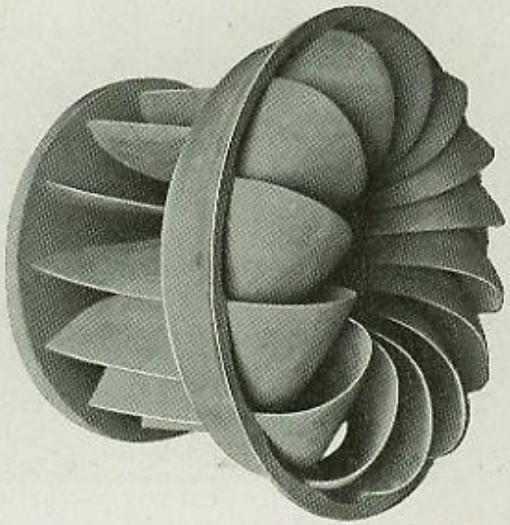
Tables of Dimensions and Price List, see page 41.

Tables of Power, Cubic Feet of Water, and Revolutions, see following pages.

Special McCormick Turbines furnished made increased capacity from 5 to 20 per cent, also speed increased to correspond with table speeds for Turbines one or two sizes smaller in diameter.

Casing and gate apparatus usually furnished like illustration on front page.

Description on Page 2 and 3



RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

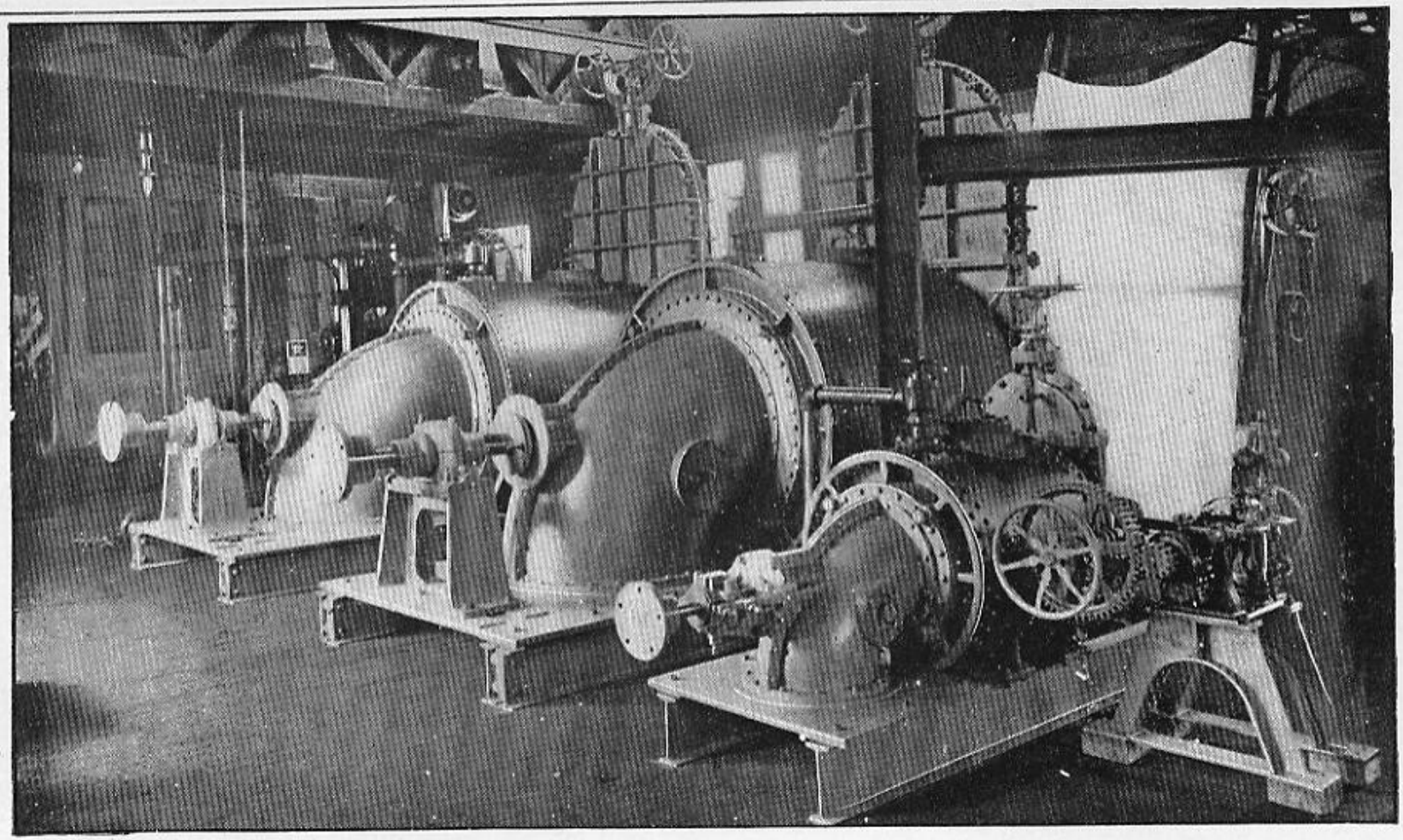


TABLE OF DIMENSIONS AND PRICES

McCormick's Holyoke Turbine

Size of Wheel	Price	Diameter of hole to be made through floor of flume	Diameter of top flange on draft-tube	Size of flume inside of planking	Depth of draft-tube	Size of Shaft	Length of Shaft from flume floor
9 inch	$ 150	1 ft. 4 in.	1 ft. 10½ in.	2 ft. 3 in.	7 inch	1 3/16 in.	1 ft. 11¼ in.
12 inch	200	1 ft. 8 in.	1 ft. 1¼ in.	3 ft.	8 inch	2 3/16 in.	2 ft. 11 5/16 in.
15 inch	250	2 ft. 1 in.	2 ft. 5⅜ in.	3 ft. 9 in.	10 inch	2 1/16 in.	3 ft. 5⅝ in.
18 inch	300	2 ft. 4 in.	2 ft. 8 in.	4 ft. 6 in.	11 inch	2 9/16 in.	3 ft. 8⅞ in.
21 inch	350	2 ft. 8 in.	3 ft. 1¼ in.	5 ft. 3 in.	13 inch	3 3/16 in.	4 ft. 2 5/16 in.
24 inch	400	3 ft. ½ in.	3 ft. 4 in.	6 ft.	14 inch	3 1/16 in.	4 ft. 7 5/16 in.
27 inch	450	3 ft. 5 in.	3 ft. 9⅞ in.	6 ft. 9 in.	16 inch	3 13/16 in.	4 ft. 10 3/16 in.
30 inch	525	3 ft. 9 in.	4 ft. 3⅝ in.	7 ft. 6 in.	18 inch	3 9/16 in.	5 ft. 3⅝ in.
33 inch	600	4 ft. 2 in.	4 ft. 7 in.	8 ft. 3 in.	19 inch	4 3/16 in.	6 ft. 1¾ in.
36 inch	700	4 ft. 6 in.	5 ft. ⅛ in.	9 ft.	23 inch	4 9/16 in.	6 ft. 6 in.
39 inch	800	4 ft. 10½ in.	5 ft. 5 in.	9 ft. 9 in.	24 inch	5 13/16 in.	6 ft. 10 in.
42 inch	900	5 ft. 3½ in.	5 ft. 10 in.	10 ft. 6 in.	26 inch	5 9/16 in.	7 ft. 1⅝ in.
45 inch	1050	5 ft. 7½ in.	6 ft. 3 in.	11 ft. 3 in.	27 inch	6 3/16 in.	7 ft. 6 1/16 in.
48 inch	1250	6 ft. 11 in.	6 ft. 6⅛ in.	12 ft.	29 inch	6 1/16 in.	8 ft. 7/16 in.
52 inch	1500	6 ft. 3½ in.	7 ft. ¼ in.	12 ft. 9 in.	31 inch	7½ in.	8 ft. 9 13/16 in.
54 inch	1800	6 ft. 8 in.	7 ft. 5¾ in.	13 ft. 6 in.	33 inch	7 13/16 in.	9 ft. 3 13/16 in.
57 inch	2150	7 ft.	7 ft. 10½ in.	14 ft. 3 in.	34 inch	7 9/16 in.	9 ft. 6 in.
60 inch	2550	7 ft. 4 in.	8 ft. 1¼ in.	15 ft.	36 inch	8 3/16 in.	9 ft. 11 13/16 in.
66 inch	3050	8 ft.	8 ft. 10¼ in.	16 ft. 6 in.	40 inch	8 9/16 in.	10 ft. 6 in.

Cylinder Gate McCormick Turbines

9 IN.	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Horse Power,	1.5	2.0	2.6	3.1	3.7	4.4	5.0	5.7	6.5	7.2	8.0	8.8	9.7	10.5	11.4	12.3
	Cu. Ft. Minute,	204	223	241	258	273	288	302	316	329	341	353	365	376	387	397	408
	Rev. Minute,	297	325	351	375	398	420	440	460	479	497	514	531	547	563	579	594
	Head in Feet,	37	38	39	40	41	42	43	44	45	46	47	48	49	50	52	54
	Horse Power,	31.0	32.3	33.5	34.8	36.2	37.5	38.8	40.2	41.6	43.0	44.4	45.8	47.2	48.7	51.7	54.7
	Cu. Ft. Minute,	554	562	569	577	584	591	598	605	612	618	625	632	638	645	657	670
	Rev. Minute,	807	818	829	840	850	860	870	881	891	900	910	920	929	939	957	976

12 IN.	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Horse Power,	2.7	3.5	4.4	5.4	6.5	7.6	8.8	10.0	11.2	12.6	13.9	15.4	16.8	18.3	19.9	21.5
	Cu. Ft. Minute,	355	389	420	449	476	502	527	550	573	594	615	635	655	674	692	710
	Rev. Minute,	223	244	263	282	299	315	330	345	359	373	386	398	411	422	434	445
	Head in Feet,	37	38	39	40	41	42	43	44	45	46	47	48	49	50	52	54
	Horse Power,	54.0	56.2	58.4	60.7	63.0	65.3	67.7	70.0	72.4	74.9	77.3	79.8	82.3	84.8	90.0	95.2
	Cu. Ft. Minute,	966	979	992	1004	1017	1029	1041	1053	1065	1077	1089	1100	1112	1123	1145	1167
	Rev. Minute,	606	614	622	630	638	645	653	660	668	675	683	690	697	704	718	732

Cylinder Gate McCormick Turbines

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
13.3	14.2	15.2	16.2	17.2	18.3	19.3	20.4	21.5	22.6	23.8	24.9	26.1	27.3	28.5	29.8
418	428	437	447	456	465	474	482	491	499	508	516	524	532	539	547
608	623	637	650	664	677	690	702	715	727	739	751	763	774	785	796
56	**58**	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**85**	**90**	**100**
57.7	60.8	64.0	67.2	70.5	73.9	77.2	80.7	84.2	87.7	91.3	94.9	98.6	107.9	117.6	137.7
682	694	706	718	729	741	752	763	773	784	795	805	815	840	865	912
993	1011	1028	1045	1062	1078	1095	1111	1126	1142	1157	1172	1187	1224	1259	1327

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
23.1	24.8	26.5	28.2	30.0	31.8	33.7	35.6	37.5	39.4	41.4	43.4	45.5	47.6	49.7	51.8
728	745	762	778	794	810	825	840	855	870	884	898	912	926	940	953
456	467	477	488	498	508	517	527	536	545	554	563	572	581	589	597
56	**58**	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**85**	**90**	**100**
100.6	106.0	111.5	117.2	122.9	128.7	134.6	140.5	146.6	152.8	159.0	165.3	171.7	188.1	204.9	240.0
1188	1210	1230	1251	1271	1290	1310	1329	1348	1366	1385	1403	1420	1464	1507	1588
745	758	771	784	796	809	821	833	845	856	868	879	891	918	945	996

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

15 IN

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	4.3	5.6	7.1	8.7	10.3	12.1	14.0	15.9	17.9	20.0	22.2	24.5	26.8	29.2	31.7	34.2
Cu. Ft. Minute,	566	620	670	716	760	801	840	877	913	947	981	1013	1044	1074	1104	1132
Rev. Minute,	178	195	211	225	239	252	264	276	287	298	308	319	328	338	347	356
Head in Feet,	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**
Horse Power,	86.1	89.6	93.2	96.8	100.4	104.1	107.9	111.7	115.5	119.4	123.3	127.2	131.2	135.3	143.5	151.8
Cu. Ft. Minute,	1540	1561	1581	1601	1621	1641	1660	1680	1791	1826	1861	1895	1928	1961	1994	2026
Rev. Minute,	484	491	497	504	510	516	522	528	534	540	546	552	558	563	574	585

18 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	6.3	8.2	10.4	12.7	15.1	17.7	20.4	23.3	26.2	29.3	32.5	35.8	39.2	42.8	46.4	50.1
Cu. Ft. Minute,	828	908	980	1048	1111	1172	1229	1283	1336	1386	1435	1482	1528	1572	1615	1657
Rev. Minute,	144	158	170	182	193	203	213	223	232	241	249	257	265	273	280	288
Head in Feet,	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**
Horse Power,	126.0	131.1	136.4	141.6	147.0	152.4	157.9	163.4	169.0	174.7	180.4	186.2	192.0	197.9	209.9	222.2
Cu. Ft. Minute,	2254	2284	2314	2343	2372	2401	2430	2458	2485	2513	2540	2567	2593	2620	2672	2723
Rev. Minute,	391	397	402	407	412	417	422	427	432	436	441	446	450	455	464	473

21 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Horse Power,	8.9	11.6	14.7	17.9	21.4	25.0	28.9	32.9	37.1	41.5	46.0	50.7	55.5	60.5	65.6	70.8
Cu. Ft. Minute,	1172	1283	1386	1482	1572	1657	1738	1815	1889	1960	2029	2096	2160	2223	2284	2343
Rev. Minute,	137	150	162	173	184	194	203	212	221	229	237	245	253	260	267	274
Head in Feet,	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**52**	**54**
Horse Power,	178.2	185.5	192.8	200.3	207.8	215.5	223.2	231.1	239.0	247.0	255.1	263.3	271.6	279.9	296.9	314.2
Cu. Ft. Minute,	3187	3230	3272	3314	3355	3396	3436	3475	3515	3554	3592	3630	3668	3705	3778	3850
Rev. Minute,	373	378	383	387	392	397	402	406	411	416	420	424	429	433	442	450

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
36.8	39.5	42.2	45.0	47.8	50.7	53.7	56.7	59.8	62.9	66.0	69.3	72.5	75.9	79.2	82.6
1160	1188	1214	1240	1266	1291	1316	1340	1364	1387	1410	1432	1455	1476	1498	1519
365	374	382	390	398	406	414	421	429	436	443	451	458	464	471	478
56	**58**	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**85**	**90**	**100**
160.3	169.0	177.8	186.8	195.9	205.2	214.6	224.1	233.8	243.6	253.5	263.6	273.8	299.8	326.7	382.6
2057	2088	2119	2149	2178	2207	2236	2265	2335	2402	2468	2532	2620	2672	2723	2822
596	607	617	627	637	647	657	666	676	685	694	703	712	734	756	796

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
53.9	57.8	61.8	65.8	70.0	74.2	78.5	82.9	87.4	92.0	96.6	101.3	106.1	111.0	115.9	120.9
1698	1738	1777	1815	1852	1889	1925	1960	1995	2029	2063	2096	2128	2160	2192	2226
295	302	309	315	322	328	334	340	346	352	358	364	370	375	381	383
56	**58**	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**85**	**90**	**100**
234.6	247.3	260.2	273.3	286.6	300.2	313.9	327.9	342.0	356.4	370.9	385.7	400.6	438.7	478.0	559.8
2773	2822	2870	2917	2964	3010	3055	3100	3144	3187	3230	3272	3314	3416	3515	3705
481	490	498	507	515	523	530	538	546	553	561	568	575	593	610	643

21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
76.2	81.7	87.3	93.1	99.0	105.0	111.1	117.3	123.6	130.1	136.6	143.3	150.1	157.0	163.9	171.0
2401	2457	2513	2567	2620	2672	2722	2772	2821	2870	2917	2964	3010	3055	3100	3144
281	287	294	300	306	312	318	324	330	336	341	347	352	357	362	368
56	**58**	**60**	**62**	**64**	**66**	**68**	**70**	**72**	**74**	**76**	**78**	**80**	**85**	**90**	**100**
331.8	349.7	367.9	386.5	405.3	424.5	443.9	463.7	483.7	504.0	524.5	545.4	566.5	620.4	676.0	791.7
3921	3990	4058	4125	4192	4256	4320	4384	4446	4507	4568	4627	4686	4830	4971	5239
458	467	475	482	490	498	505	513	520	527	534	541	548	565	581	613

RODNEY HUNT MACHINE COMPANY'S NEW PATTERN CYLINDER GATE TURBINES

24 IN.																
	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Horse Power,	11.7	15.4	19.4	23.7	28.2	33.1	38.1	43.5	49.0	54.8	60.7	66.9	73.3	79.8	86.6	93.5
	Cu. Ft. Minute,	1547	1695	1831	1957	2076	2188	2295	2397	2495	2589	2680	2768	2853	2936	3016	3095
	Rev. Minute,	113	124	134	143	152	160	168	175	182	189	196	202	208	214	220	226
	Head in Feet,	37	38	39	40	41	42	43	44	45	46	47	48	49	50	52	54
	Horse Power,	235.3	244.9	254.7	264.5	274.5	284.6	294.8	305.2	315.6	326.2	336.9	347.7	358.6	369.7	392.1	414.9
	Cu. Ft. Minute,	4209	4265	4321	4376	4431	4484	4537	4590	4642	4693	4744	4794	4844	4893	4990	5085
	Rev. Minute,	307	312	316	320	324	328	331	335	339	343	347	350	354	357	364	371

27 IN.																
Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Horse Power,	14.8	19.5	24.5	30.0	35.8	41.9	48.3	55.0	62.1	69.4	76.9	84.7	92.8	101.1	109.7	118.4
Cu. Ft. Minute,	1960	2147	2319	2479	2629	2771	2906	3036	3160	3279	3394	3505	3613	3718	3820	3919
Rev. Minute,	106	116	125	134	142	149	157	164	170	177	183	189	195	200	206	211

30 IN.																
Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Horse Power,	17.8	23.4	29.5	36.1	43.1	50.4	58.2	66.3	74.8	83.6	92.7	102.1	111.8	121.8	132.1	142.7
Cu. Ft. Minute,	2361	2686	2793	2986	3167	3338	3501	3657	3806	3950	4089	4223	4353	4479	4602	4721
Rev. Minute,	93	102	110	118	125	132	138	144	150	156	161	167	172	177	182	186

33 IN.																
Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Horse Power,	19.8	26.1	32.9	40.2	47.9	56.1	64.7	73.8	83.2	92.9	103.1	113.6	124.4	135.5	147.0	158.7
Cu. Ft. Minute,	2626	2876	3107	3321	3523	3713	3895	4068	4234	4394	4548	4697	4842	4982	5119	5252
Rev. Minute,	81	89	96	102	109	114	120	125	131	135	140	145	149	154	158	162

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
100.6	107.9	115.3	122.9	130.7	138.6	146.7	154.9	163.3	171.8	180.5	189.3	198.2	207.3	216.5	225.8
3171	3246	3318	3390	3460	3528	3595	3661	3726	3790	3853	3914	3975	4035	4094	4152
232	237	242	248	253	258	263	267	272	277	281	286	290	295	299	303

56	58	60	62	64	66	68	70	72	74	76	78	80	85	90	100
438.2	461.8	485.9	510.4	535.3	560.6	586.3	612.4	638.8	665.6	692.8	720.3	748.2	819.4	892.7	1045.6
5178	5270	5360	5448	5536	5621	5706	5789	5871	5952	6032	6111	6189	6379	6564	6920
378	385	392	398	404	411	417	423	429	435	441	446	452	466	480	505

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
127.4	136.6	146.1	155.7	165.5	175.6	185.8	196.2	206.8	217.6	228.6	239.7	251.0	262.5	274.2	286.0	298.0	310.2	322.5	335.0
4016	4110	4203	4293	4382	4468	4554	4637	4719	4800	4879	4957	5034	5110	5184	5258	5331	5402	5473	5542
217	222	227	231	236	241	245	250	254	259	263	267	271	275	280	283	287	291	295	299

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
158.5	164.6	176.0	187.6	199.4	211.5	223.8	236.3	249.1	262.1	275.3	288.8	302.4	316.3	330.3	344.6	359.0	373.7	388.5	403.6
4838	4952	5063	5172	5278	5383	5486	5586	5685	5782	5878	5972	6064	6156	6246	6334	6421	6508	6593	6677
191	195	200	204	208	212	216	220	224	228	232	236	239	243	246	250	253	257	260	263

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
170.8	183.1	195.7	208.6	221.8	235.2	248.9	262.9	277.1	291.6	306.3	321.2	336.4	351.8	367.4	383.3	399.4	415.7	432.2	448.9
5381	5508	5632	5753	5871	5988	6102	6214	6324	6432	6538	6643	6746	6847	6947	7046	7143	7239	7333	7427
166	170	174	177	181	185	188	192	195	198	202	205	208	211	214	217	220	223	226	229

36 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Horse Power,	25.1	32.9	41.5	50.7	60.5	70.9	81.7	93.1	105.0	117.4	130.2	143.4	157.1	171.1	185.6	200.4	215.6
Cu. Ft. Minute,	3316	3632	3923	4194	4449	4689	4918	5137	5347	5548	5743	5931	6114	6291	6464	6632	6795
Rev. Minute,	79	87	94	100	106	112	118	123	128	133	137	142	146	150	154	158	162

39 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Horse Power,	29.4	38.7	48.8	59.6	71.1	83.3	96.1	109.5	123.5	138.0	153.0	168.6	184.6	201.1	218.1	235.6	253.5
Cu. Ft. Minute,	3898	4270	4612	4930	5229	5512	5781	6038	6285	6522	6751	6972	7187	7395	7598	7795	7988
Rev. Minute,	69	76	82	87	93	98	103	107	111	116	120	124	127	131	135	138	142

42 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Horse Power,	36.2	47.5	59.9	73.2	87.3	102.3	118.0	134.4	151.6	169.4	187.9	207.0	226.7	247.0	267.8	289.3	311.2
Cu. Ft. Minute,	4786	5242	5662	6053	6421	6768	7098	7414	7717	8008	8289	8561	8824	9080	9329	9571	9808
Rev. Minute,	67	74	80	85	90	95	100	104	108	112	116	120	124	128	131	134	138

45 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Horse Power,	38.5	50.6	63.8	77.9	93.0	108.9	125.6	143.1	161.4	180.4	200.1	220.4	241.4	263.0	285.2	308.0	331.4
Cu. Ft. Minute,	5096	5582	6030	6446	6837	7207	7558	7894	8217	8527	8826	9116	9396	9669	9934	10192	10443
Rev. Minute,	61	67	72	77	82	87	91	95	99	102	106	109	113	116	119	122	125

48 IN.

Head in Feet,	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Horse Power,	43.4	57.1	72.0	87.9	104.9	122.9	141.7	161.5	182.1	203.5	225.7	248.6	272.3	296.7	321.8	347.5	373.9
Cu. Ft. Minute,	5749	6298	6802	7272	7713	8130	8527	8906	9270	9620	9958	10284	10601	10908	11207	11498	11782
Rev. Minute,	55	60	65	70	74	78	82	85	89	92	95	98	102	104	107	110	113

RODNEY	HUNT	MACHINE	COMPANY'S	NEW	PATTERN	CYLINDER	GATE	TURBINES

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
231.2	247.2	263.4	280.1	297.1	314.4	332.0	349.9	368.2	386.7	405.6	424.8	444.2	464.0	484.0	504.3	524.9	545.7	566.9
6955	7112	7265	7414	7561	7705	7847	7985	8122	8256	8388	8518	8646	8773	8897	9020	9141	9260	9378
166	170	174	177	181	184	187	191	194	197	200	204	207	210	213	216	218	221	224

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
271.8	290.5	309.7	329.2	349.2	369.5	390.2	411.3	432.8	454.6	476.8	499.3	522.2	545.4	568.9	592.8	617.0	641.5	666.3
8176	8359	8539	8715	8888	9057	9223	9387	9547	9705	9860	10013	10164	10312	10459	10603	10745	10885	11024
145	148	151	155	158	161	164	166	169	172	175	178	180	183	186	188	191	193	196

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
333.7	356.7	380.2	404.2	428.7	453.7	479.1	505.0	531.4	558.2	585.4	613.1	641.1	669.6	698.5	727.8	757.5	787.6	818.1
10038	10264	10485	10701	10913	11121	11325	11525	11722	11916	12107	12294	12479	12661	12841	13018	13193	13365	13536
141	144	147	150	153	156	159	162	165	167	170	173	175	178	180	183	185	188	190

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
355.3	379.8	404.9	430.5	456.5	483.1	510.2	537.8	565.8	594.4	623.4	652.8	682.7	713.0	743.8	775.2	806.7	838.7	871.2
10689	10929	11164	11395	11620	11842	12059	12272	12482	12689	12892	13091	13288	13482	13674	13862	14048	14232	14413
128	131	134	137	139	142	145	147	150	152	155	157	160	162	164	166	169	171	173

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
400.9	428.5	456.8	485.6	515.0	545.0	575.6	606.7	630.4	670.5	703.3	736.5	770.2	804.4	839.2	874.4	910.0	946.2	982.8
12059	12330	12595	12855	13110	13360	13605	13845	14082	14315	14544	14769	14992	15210	15426	15639	15849	16056	16261
115	118	121	123	126	128	130	133	135	137	139	141	144	146	148	150	152	154	156

51 IN.																		
	Head in Feet	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Horse Power,	49.5	65.0	81.9	100.1	119.4	139.9	161.4	183.9	207.3	231.7	257.0	283.1	310.0	337.8	366.3	395.6	425.7
	Cu. Ft. Minute,	6545	7170	7745	8279	8782	9257	9708	10140	10554	10952	11337	11709	12069	12419	12759	13081	13414
	Rev. Minute,	56	61	66	70	75	79	82	86	90	93	96	99	103	106	108	111	114

54 IN.																		
	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Horse Power,	55.4	72.9	91.8	112.2	133.9	156.8	180.9	206.1	232.4	259.8	288.1	317.4	347.6	378.7	410.7	443.5	477.2
	Cu. Ft. Minute,	7338	8038	8682	9282	9845	10378	10884	11368	11832	12279	12710	13127	13531	13923	14304	14676	15038
	Rev. Minute,	51	56	60	64	68	72	76	79	82	85	88	91	94	97	99	102	105

57 IN.																		
	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Horse Power,	65.3	85.9	108.2	132.2	157.8	184.8	213.2	242.9	273.9	300.1	330.4	374.0	409.6	446.2	483.9	522.6	562.3
	Cu. Ft. Minute,	8646	9472	10231	10937	11601	12228	12825	13395	13942	14468	14976	15467	15943	16406	16855	17293	17720
	Rev. Minute,	50	55	59	63	67	70	74	77	80	83	86	89	92	94	97	100	102

60 IN.																		
	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Horse Power,	68.4	90.0	113.4	138.5	165.3	193.6	223.3	254.5	286.9	320.7	355.7	391.8	429.1	467.5	507.0	547.6	589.1
	Cu. Ft. Minute,	9059	9924	10719	11459	12154	12812	13437	14035	14608	15159	15691	16206	16704	17189	17660	18119	18566
	Rev. Minute,	46	50	54	58	62	65	68	71	74	77	79	82	85	87	89	92	94

66 IN.																		
	Head in Feet,	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Horse Power,	82.8	108.9	137.2	167.6	200.0	234.2	270.2	307.9	347.2	388.0	430.3	474.1	519.2	565.7	613.5	662.6	712.9
	Cu. Ft. Minute,	10962	12008	12970	13866	14707	15502	16259	16982	17675	18343	18986	19609	20213	20798	21368	21924	22465
	Rev. Minute,	42	46	49	53	56	59	62	65	67	70	72	75	77	79	81	83	86

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
456.4	487.9	520.0	552.9	586.4	620.5	655.3	690.8	726.8	763.4	800.7	838.5	876.9	915.9	955.4	995.5	1036.1	1077.3	1119.0
13730	14038	14340	14636	14926	15210	15489	15763	16033	16298	16559	16815	17068	17317	17363	17805	18044	18280	18513
117	119	122	124	127	129	132	134	136	138	141	143	145	147	149	151	153	155	157

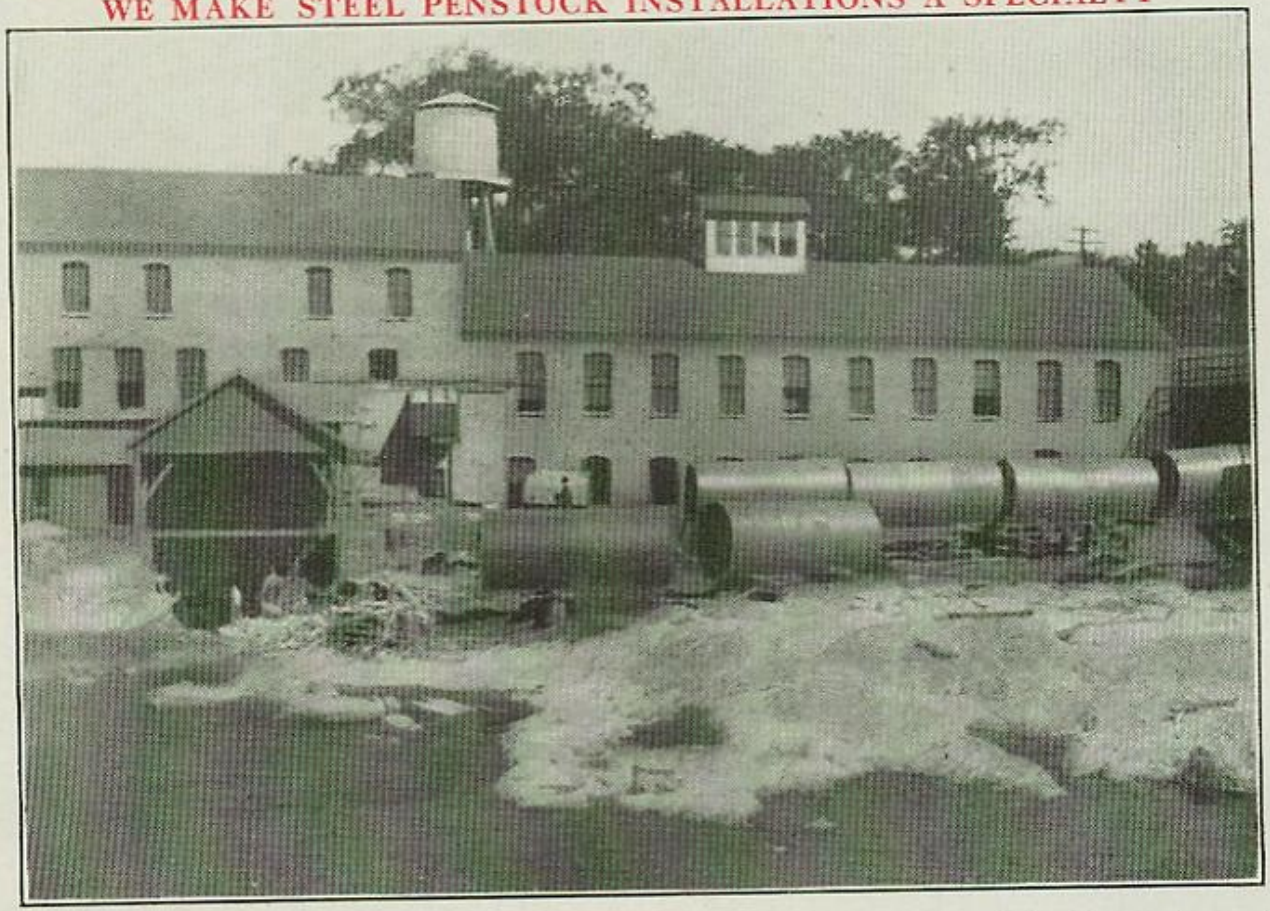
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
511.7	547.0	583.0	619.8	657.4	695.7	734.7	774.4	814.8	855.9	897.6	940.0	983.1	1026.8	1071.1	1116.0	1161.6	1207.7	1254.5
15392	15738	16077	16408	16733	17052	17365	17672	17974	18272	18564	18852	19135	19415	19690	19962	20230	20494	20755
107	109	112	114	116	119	121	123	125	127	129	131	133	135	137	139	141	142	144

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
602.9	644.5	687.0	730.4	774.6	819.7	865.7	912.5	960.1	1008.5	1057.7	1107.6	1158.4	1209.9	1262.1	1315.0	1368.7	1423.1	1478.2
18137	18545	18944	19334	19717	20093	20461	20824	21179	21530	21874	22213	22547	22876	23201	23521	23837	24148	24456
104	107	109	111	113	116	118	120	122	124	126	128	130	132	134	135	137	139	141

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
631.7	675.3	719.8	765.2	811.6	858.9	907.0	956.1	1005.9	1056.7	1108.2	1160.5	1213.7	1267.6	1322.3	1377.8	1434.1	1491.0	1548.7
19003	19430	19848	20257	20658	20152	21438	21818	22191	22557	22918	23274	23624	23969	24309	24644	24975	25301	25624
96	98	101	103	105	107	109	111	112	114	116	118	120	121	123	125	127	128	130

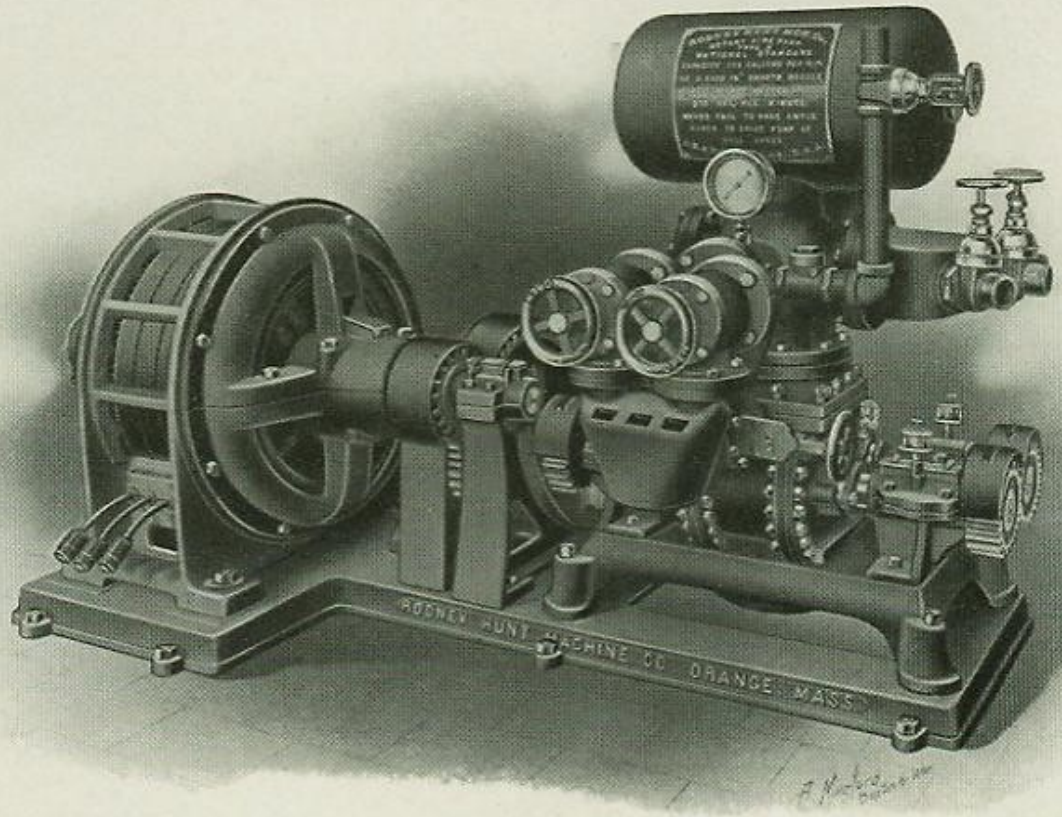
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
764.4	817.1	870.9	925.09	982.1	1039.3	1097.5	1156.8	1217.2	1278.6	1340.9	1404.3	1468.6	1533.9	1600.0	1667.2	1735.2	1804.1	1874.0
22994	23510	24016	24511	24997	25473	25940	26399	26851	27295	27731	28161	28585	29002	29414	29819	30220	30615	31005
88	89	91	93	95	97	99	100	102	104	106	107	109	110	112	113	115	117	118

WE MAKE STEEL PENSTOCK INSTALLATIONS A SPECIALTY



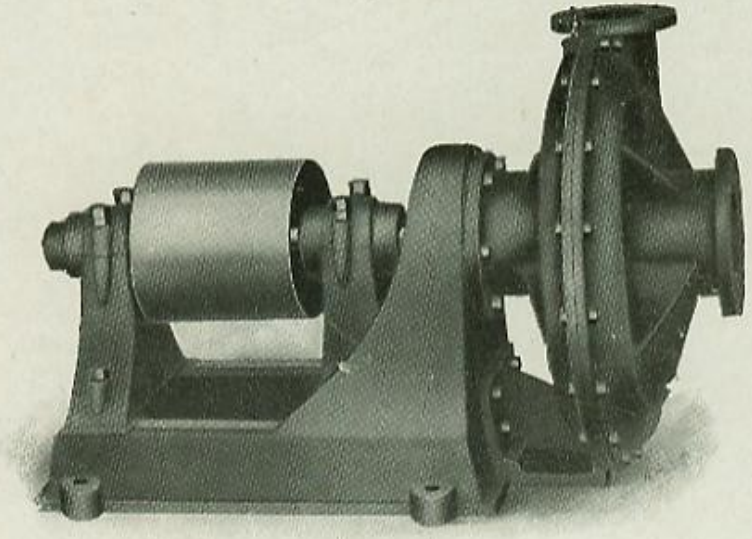
Our compressed air pneumatic equipment enables us to manufacture this class of work in the best and most expeditious manner at moderate prices. Complete outfits undertaken, including penstocks, water wheels, head gates, etc., as illustrated above.

NATIONAL STANDARD UNDERWRITER ROTARY FIRE PUMPS



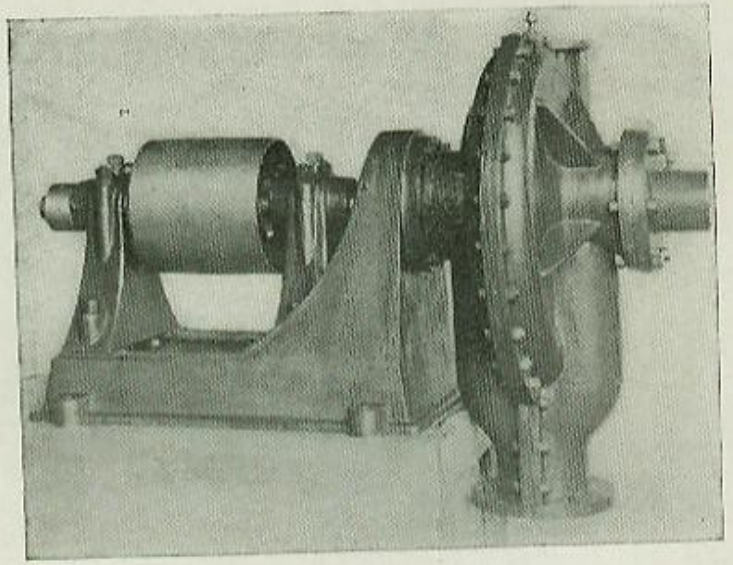
Motor driven like this illustration, or friction groove wheel drive connecting with mill shafting.

CENTRIFUGAL PUMPS



TYPE A

For Ordinary Lifts



TYPE B

For High Lifts

These Pumps are Especially Designed and Adapted for Supplying Water in Textile Mills to Cloth, Knit Goods and Felt Washers. Also to Wool, and All Kinds Stock Washers, Dyeing, Bleaching and Carbonizing Machines, Tanks, Kettles, etc.

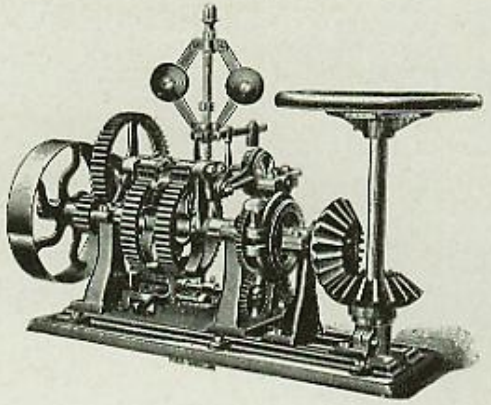
More Fully described in Circular No. 23. Write for Prices, etc.

Improved Duplex Relay Water Wheel Regulators

These Regulators have long been regarded as the most simple, durable and efficient of any in use for correcting rapidly any disturbed motion of machinery driven by water power.

Their action upon the gate is proportioned to the variations in speed. It works rapidly and surely when the variation in speed is considerable, and slows up as it nears the correct speed. But any deviation from the correct speed, however slight, affects the action of the Regulator upon the gate, and it quickly brings the speed up or down to the proper point.

A permanent variation in speed can be secured by adjustment of special attachment. A stop motion attachment is also provided.



Descriptive Circular No. 46.

Improved Textile Wet Finishing Machinery

CIRCULAR NO. 12 — UNIVERSAL FULLING MILL, TYPE S.
CIRCULAR NO. 13 — COMMON CAPACITY FULLING MILL, TYPE T.
CIRCULAR NO. 301 — LATEST IMPROVED FULLING MILL, TYPE SH.
CIRCULAR NO. 201 — CLOTH WASHER TYPES C, D AND CH.
CIRCULAR NO. 202 — KNIT GOODS WASHER, TYPE C.
CIRCULAR NO. 14 — ENDLESS FELT WASHER.
CIRCULAR NO. 401 — DYEING MACHINES, TYPE L.
CIRCULAR NO. 401 — CHLORIDE LIME BLEACHING MACHINE, TYPE M.
CIRCULAR NO. 28 — PEROXIDE SODIUM BLEACHING MACHINE, TYPE S.
CIRCULAR NO. 26 — WRINGER AND EXTRACTOR.
CIRCULAR NO. 302 — SOAPING MACHINE.
CARBONIZING MACHINES AND
SPECIAL MACHINES TO ORDER.

TURBINE WATER WHEELS,

Mounted on Horizontal Shaft a Specialty.

IRON Flumes. Penstocks and everything pertaining to Water Wheel Work. Head Gate Gearing and Apparatus. Rotary Fire Pumps and Friction Gearing. Centrifugal Pumps. Friction and Improved Clutch Pulleys. Friction, Clutch and Angle Couplings. Mill Gearing, Shafting and Pulleys. Power Transmission Machinery. Iron Water Racks. Water Wheel Regulators.

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